November, 1956

The American School Board Journal

A PERIODICAL OF SCHOOL ADMINISTRATION

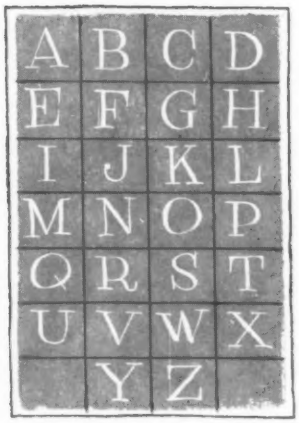
In This Issue:

Lexington and Merit Rating—*Smith*

Equipment Procurement Plan—*Levin*

What Makes Education Vocational?—*Ingram*

The Emmaus High School



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Bakersfield, California

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THE AMERICAN
School Board Journal
A Periodical of School Administration

November, 1956

VOL. 133 NO. 5

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WILLIAM C. BRUCE, Editor

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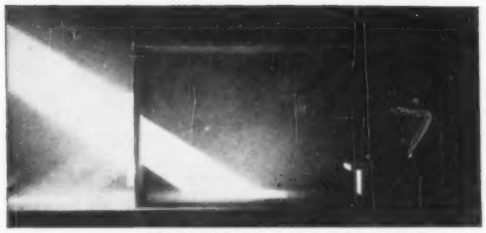
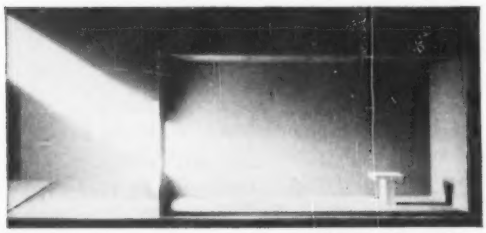
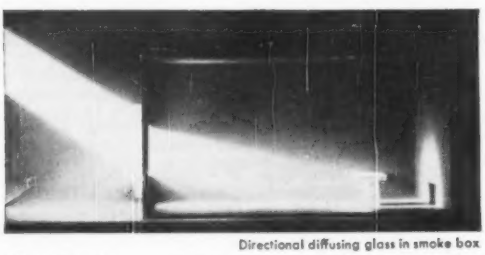
THERE'S MORE TO *daylight* THAN MEETS THE EYE



"Smoke Box" photo—window glazed with clear glass.



Diffusing glass in smoke box.



Directional diffusing glass in smoke box

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WORLD'S LARGEST MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS

"All Aboard"

Notes from N.S.B.A. Headquarters

W. A. SHANNON

The Mississippi School Boards Association was organized in 1951. It faced insurmountable difficulties and problems from the beginning, the greatest being that no membership dues could legally be paid by school boards to the association. There were thousands of school attendance centers operated by trustees. County, city, and line school boards existed with much confusion and lack of understanding concerning duties, responsibilities, and relationships.

In 1953, the General Assembly was called into an extraordinary session to work on legislation for public schools. Two major steps were taken, namely, that the schools of the state must be surveyed and reorganized into larger units by July 1, 1957, if they were to receive state funds, and school boards, under certain conditions, may affiliate with an association of school boards and pay membership dues to it.

Immediately the state association of school boards was revived. Due to the uncertainties of the district reorganization and the membership on the newly organized local boards, however, the association accomplished very little.

Many school board members and educational leaders throughout the state have recognized the need for revitalizing the Mississippi School Boards Association. On August 22 last, school board leaders met in Jackson and elected Jack Stuart of Morton as President. Dr. C. M. Wells, president of the original association, gave his support to the movement. Later, September 10, the new board of directors and officers met in Jackson to continue the work of reorganizing the association. At this meeting the following decisions were made: (1) establish a dues schedule of 6 cents per pupil in average daily attendance, which provides a potential budget of from $25,000 to $30,000; (2) publish a newsletter for every board member in the state; (3) hold a meeting in each of the six congressional districts in the state for school board members; (4) contact the reconstructed boards and urge them to join the association; (5) accept the concept that the Mississippi School Boards Association is part of a team for supporting the public schools in the state; (6) plan to establish a headquarters office in Jackson as soon as finances permit; (7) affiliate with the National School Boards Association by February 1, 1957.

The enthusiasm of the officers and board of directors and the unanimity of opinion as indicated by the voting, after full discussion of problems and procedures, indicates that this association can become one of the stronger associations in the nation.

Orientation for New Trustees

There are approximately 300,000 school board members in the United States. These laymen have the *legal* responsibility for the operation of public schools in 59,270 school districts. From 25 to 30 per cent of these elected or appointed laymen are new on the job annually. From 75,000 to 90,000 new members each year must be oriented to the duties and responsibilities of school board membership. Most have had little or no previous training for this important work. Who is to provide this important service?

Since being a school board member is a public service, most of those elected to this position cannot take the time off for a month's college course to learn of their respective duties. Some other plan must be provided.

In many instances the superintendent of schools may greatly assist the new board member in learning his duties and obligations by making the minutes book of the board available, providing handbooks for the school board members, and a copy of the policies, rules, and regulations from the local school system, and by making possible the discussion of local educational problems.

The newly elected board member can learn some of the details of the operation of the local schools by discussions with his colleagues on the board.

For obvious reasons, the plans outlined above cannot fully meet the needs of the newly elected school trustee. Then who, or what organization, should be responsible for the greater part of the orientation of new members?

Many experienced board members testify that district, state, and national meetings, sponsored by school board associations, along with the materials they provide, have been and continue to be their best source of assistance.

One of the many purposes of a state school boards association is to teach the new members. When state associations provide this *leadership training*, it is usually done through the co-operation of the superintendents, institutions of higher learning, and the state department of education.

On September 12, the Indiana School Boards Association sponsored a state-wide meeting for new school board members in Indianapolis. One hundred sixty-five attended, with approximately one third of these being new members. Experienced members, superintendents, educational leaders from state colleges and universities, along with visitors, completed the group.

The program was varied with short interesting talks on ethics, school laws, public relations, finance, and personnel. Raymond Snapp, chairman of the Bedford school board, is editor of the local paper. A portion of his speech is as follows:

"The dual role of school board members — president in particular — and editor of a newspaper is loaded with difficult and sometimes embarrassing predicaments.

"I became president of the Bedford school board at a time when the board was preparing to select a new superintendent, a new high school principal, and a new coach. This was big news — lots of meat for a newspaper reporter — and we were on the inside for the first time.

"To do justice to both jobs required no little amount of consideration. As a newspaperman, I felt a keen responsibility to the reading public to keep the people adequately informed. As a school board member, I recognized that considerable damage could be done by untimely or premature publication of news regarding the placement of personnel.

"As a result of my experiences during

(Concluded on page 8)

UNITED ACTION

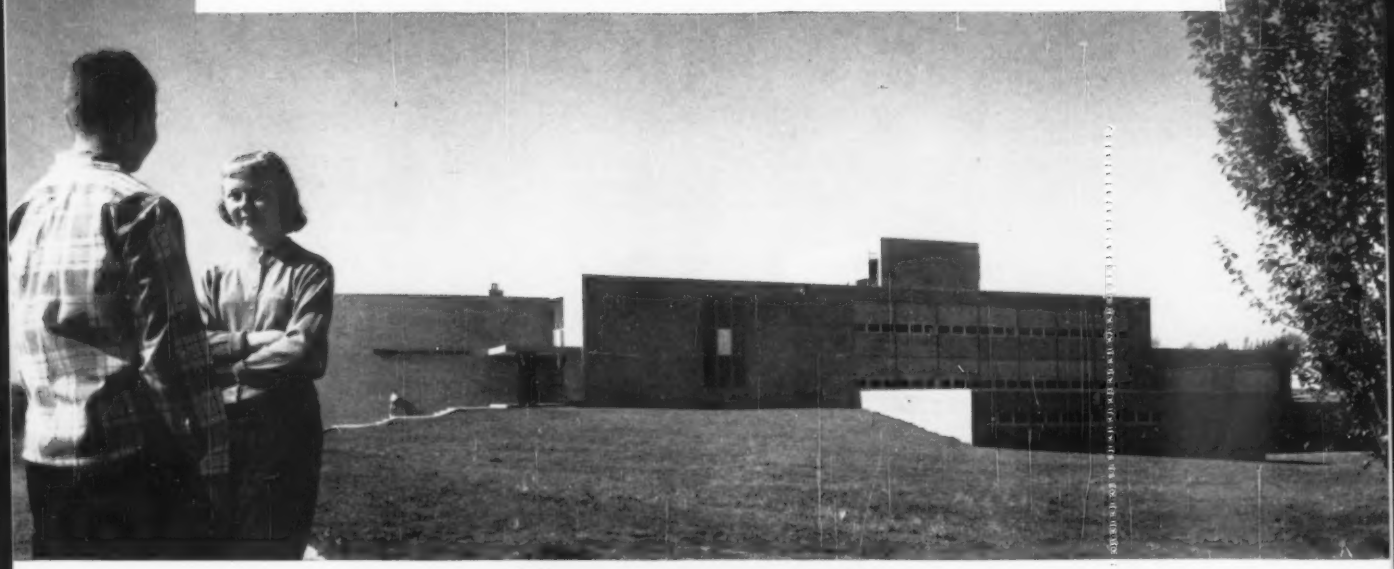
"Getting together is the means by which anything can be accomplished."

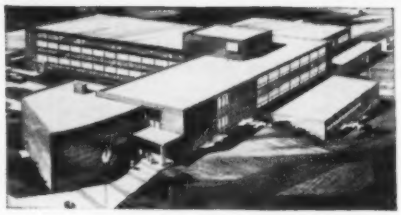
— PESTALOZZI

Whether the problem to be solved is educational, economic, social, religious, or political, progress can be made as long as the relationships permit those with opposing views to continue discussing the issues. "In union there is strength" is an adage upon which this nation placed its foundation. It is the basis upon which we will continue to be successful. — *W. A. S.*

The Modern Approach to School Planning . . .

GET MORE COMFORT PER DOLLAR, SPEND LESS FOR HEATING





Increasingly high comfort standards, on the one hand, and pressure to reduce operating expenses, on the other, have centered interest on the importance of automatic temperature control. For both *comfort* and the *cost of comfort* in today's schools are determined largely by the efficiency of the control system.

In the impressive new Edison Junior High School* progressive school planners have demonstrated how it is easily possible to stress economy while making exceptionally complete provisions for student and teacher comfort. Some of the highlights of this up-to-the-minute comfort control system are shown by the accompanying photographs.

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*Edison Junior High School, Sioux Falls, South Dakota. Harold Spitznagel & Associates, architects, Sioux Falls; Homer Bird, mechanical engineer, Minneapolis; Carlson & Glasgow, mechanical contractors, Sioux Falls.

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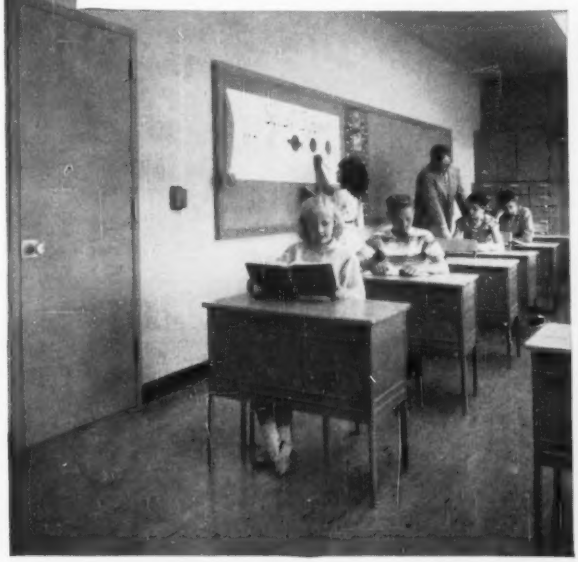
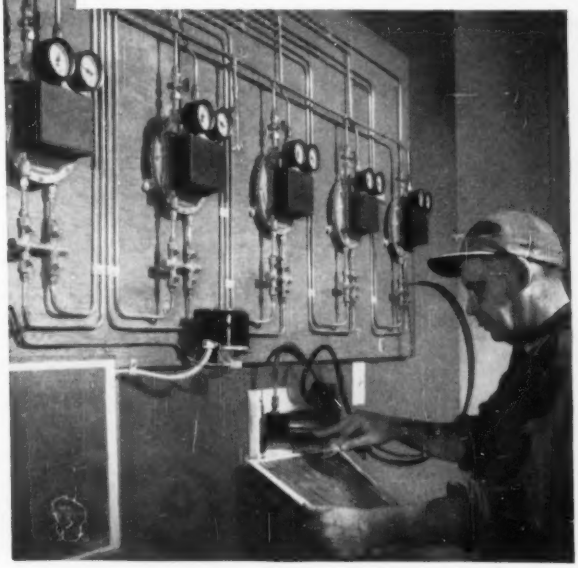
ON THE WALL of each classroom, sensitive Johnson Thermostats provide precision, waste-free regulation of both heat and ventilation. Use of *individual room* control makes certain that occupants of each room enjoy ideal temperatures, even though heat and ventilation requirements often vary widely from one classroom to another due to differences in exposure, occupancy levels, activities and other factors.



HEATING AND VENTILATING of this modern building are accomplished by a combination of central fan heating and ventilating units and convector radiation. The entire system is automatically coordinated at all times to insure the greatest possible operating efficiency. Corridors, the gymnasium, auditorium, cafeteria and other large spaces are as closely controlled as classrooms.

UNIFORM AIR DISTRIBUTION is essential to consistent comfort. Opening and closing of dampers as air is discharged at various points throughout the building could result in too little ventilation in some rooms, too much in others. Here, behind the scenes, Johnson Static Pressure Regulators keep the entire ventilation system in perfect balance and insure even air distribution at all points.



OUTDOOR AIR FOR VENTILATION is admitted through the action of Johnson Dampers and Damper Operators. Air is heated only enough to offset the effects of outdoor temperatures. The temperature of the water supplied to the convector radiation is also controlled according to outdoor conditions. This weather-compensated primary control adds greatly to comfort while minimizing fuel consumption.

N.S.B.A. REPORT

(Concluded from page 5)

the past year, I feel that I can speak with a measure of authority on the subject of the manner in which school boards conduct themselves in relation to the public interest.

"I believe that I am safe in saying that we published less of the proceedings of the board in the selection of our top personnel than we could have had there been no representative of the press as a member of the board. Caution was my byword and above all, I wanted to do nothing or publish nothing that would have any detrimental effect on the schools, or the persons directly involved in what we were doing.

"Please do not misunderstand me. I believe and strongly recommend that representatives of the press should be present at all school board meetings, with the possible exception of executive sessions in which such topics as discipline of a particular pupil, teacher or administrator are discussed; interviewing of prospective administrators and selecting new school sites.

"In the selection of a superintendent, principal or coach, for instance, the public has entrusted to the school board the task of making a good selection. The board should not be disturbed in this effort by untimely publicity as to who the applicants are, who has top consideration, etc. The time for publicity is after the selection has been made. Persons hurt the most by untimely publicity are the unsuccessful applicants. Their school board may question why they were not chosen for a higher position or even resent their seeking a better position."

Hawaii First

Katsumi Kometani, chairman of the Board of Education, Territory of Hawaii, attended the 1956 Convention of the National School Boards Association in Atlantic City, N. J. Upon his return to Honolulu, steps were taken immediately to have the territorial board of education affiliate with the N.S.B.A. for 1956–57.

Today Hawaii is the first territorial possession of the United States to affiliate. It is hoped that Alaska, Virgin Isles, Puerto Rico, and the District of Columbia will follow soon.

What they say:*

"No maintenance cost" 11 stokers

"controlled heat without waste" 30 stokers

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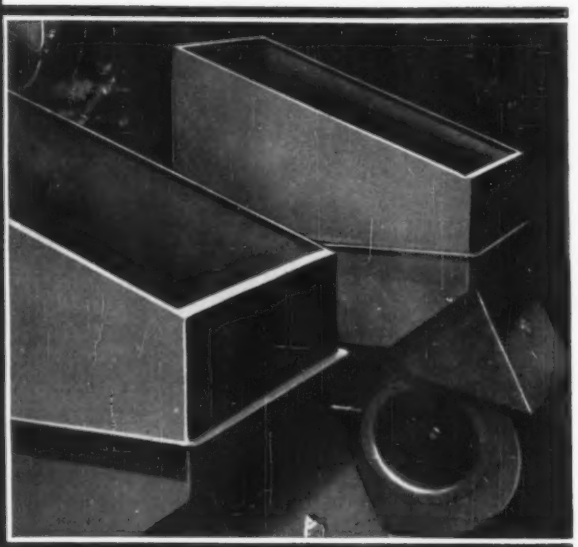

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Nov. 7–10. Kansas Association of School Boards. Pres.: Dr. W. F. Bermtorl, Winfield, Kansas. No exhibits. 250.

Nov. 7–11. National Association of Public School Adult Educators, Haddon Hall Hotel, Atlantic City, N. J. Secretary: Robert A. Luke.

Nov. 12–14. Montana School Boards Association, at Great Falls, Mont. Rainbow Hotel. Secretary: J. L. Gleason, Sr., Box 669, Livingston, Mont. No exhibits. 300.

Nov. 15–16. Colorado Association of School Boards, at Denver, Colo., Albany Hotel. Secretary: John Coffelt; Executive Secretary, Pres.: Roy O. Frantz, P.O. Box 1654, Pueblo, Colo. Exhibits. 250–300.

Nov. 15–16. Iowa Association of School Boards, at Des Moines, Iowa, Veterans Memorial Auditorium. Secretary: Don A. Foster, 229 Jewett Blvd., Des Moines, Iowa. Exhibit Chairman: Don A. Foster. Exhibits. 1,500–2,000.

Nov. 18–20. Illinois Association of School Boards, at Chicago, Ill., Sherman Hotel. Secretary: Robert M. Cole, 223½ E. Washington St., Springfield, Ill. Exhibit Chairman: Robert M. Cole. Exhibits. 2,000.

Nov. 30. Oklahoma State School Boards Association, Inc., at Oklahoma City, Okla., Skirvin Hotel. Secretary: J. Orville Bumpus, Executive Secretary, Oklahoma State School Board Association, 323 E. Madison, Oklahoma City, Okla. Exhibit Chairman: J. Orville Bumpus. Exhibits. 500.

Nov. 29–Dec. 1. State Federation of District Boards of Education of New Jersey, at Atlantic City, N. J., Haddon Hall Hotel. Secretary: Richard G. Marden, 514 Green Wood Avenue, Trenton, N. J. Exhibit Chairman: Richard G. Marden. Exhibits. 600–700.

Dec. 4–6. California Association of School Administrators, at San Francisco, Calif., Palace Hotel. Secretary: Dr. Robert E. Cralle, 35 N. Raymond Avenue, Pasadena, Calif. Exhibits. 3,000.

PERSONAL NEWS OF SCHOOL BOARD OFFICIALS

★ The school board of Eveleth, Minn., has reorganized with EDWARD ERSPAMER as president; DR. T. P. NANKERVIS as clerk; and LEWIS INTIHAR as treasurer.

★ LYLE WIDUP is the new president of the board at Parsons, Kans.

★ EDWIN C. CATHLRS has been elected president of the board at Chanute, Kans.

★ TED BROWNING is the new president of the board at Pratt, Kans.

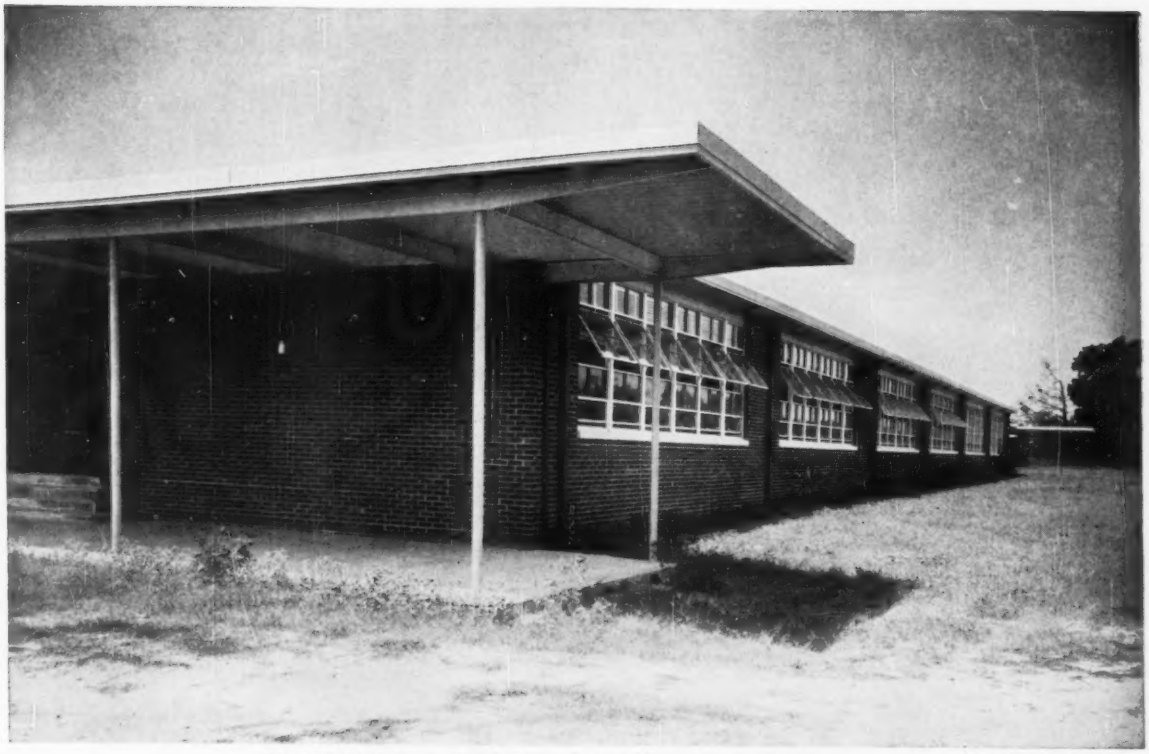
★ ROY HARDIN has been elected president of the board at Pittsburg, Kans.

★ FRANK FREEMAN has been re-elected president of the board at Leavenworth, Kans.

★ The school board of the Bloomington Metropolitan Schools, Bloomington, Ind., has reorganized with BRUCE B. TEMPLE as president; GEORGE F. MITCHELL as secretary; and FRANK SOUTHERN as treasurer. Other members are LLOYD ANDERSON and GEORGE A. MCCLAIN.

★ ARCHIE L. WILLIAMS has succeeded Ray E. Miller as secretary of the board at Carl Junction, Mo. Mr. Miller as resigned because of ill health.

★ WILLIAM C. GEER has recently joined the staff of the Southern Regional Education Board at Atlanta, Ga. He will direct the new regional program on special education.



Maewood School, Sumter, S. C. Architects: James and Durant, Sumter, S. C. Contractor: H. L. Eargle Construction Co., Columbia, S. C. Windows: Lupton Master Aluminum.

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For more than two generations Lupton Windows have been first choice with many of the country's leading school architects. Now with many styles available in care-free aluminum, the line offers greater value than ever before. Ask your architect about Lupton. He has probably specified them before and may even have a Lupton job on his boards now. And if you are interested in a truly modern school, ask him about the Lupton Simplified Curtain-Wall System. It offers freedom in design, faster construction and permanent, colorful beauty. Or write direct for details on Lupton Metal Windows and Curtain-Walls.

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LUPTON

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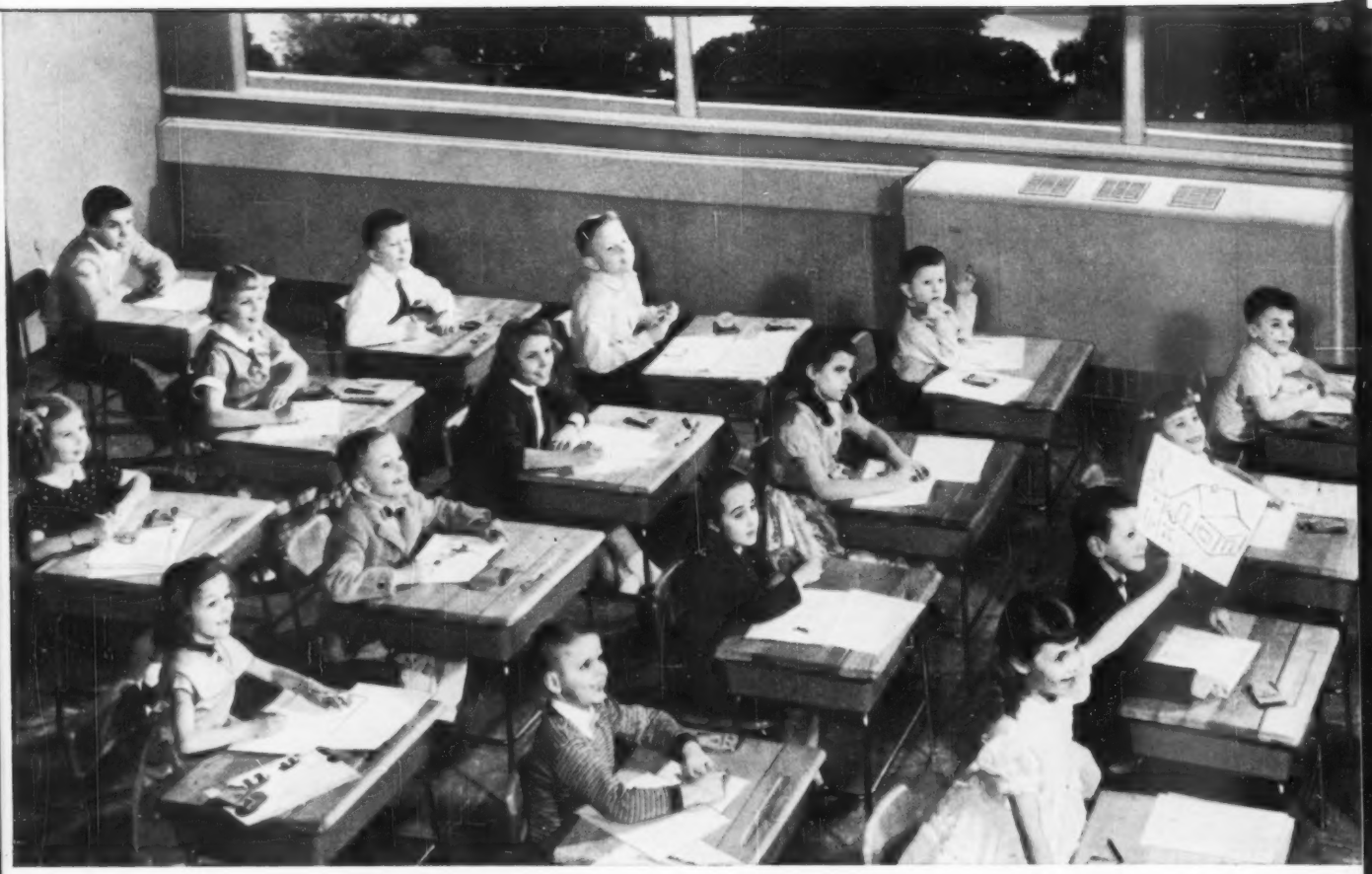

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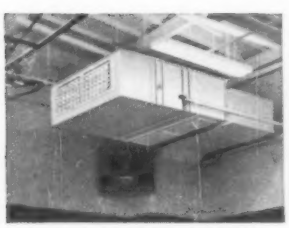
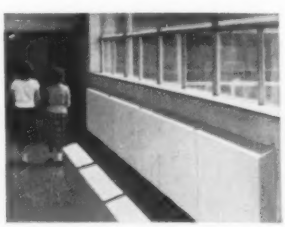
You can solve even *special* heating and ventilating problems with standard TRANE equipment—at prices that fit your building or remodeling budget! In the complete TRANE line you'll find efficient, economical equipment to solve your most difficult heating and ventilating problem—and without having to pay "custom-built" prices.

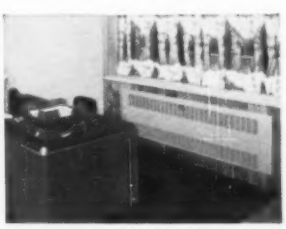
There's TRANE equipment to do almost any job—from stopping drafts along icy window panes to freshening locker rooms . . . ventilating gyms and auditoriums . . . cooling offices and heating corridors! And, best of all, TRANE equipment is *matched* equipment . . . built together for use



In gymnasiums and locker rooms, TRANE Torrivents heat and ventilate, blend in outside air in any desired proportion and gently warm the atmosphere. No more stale, musty odors in the gym!



In hallways and corridors, TRANE Wall Line and Wall Fin Convectors bring draft-free heating to long wall and window runs. Units are adaptable to any size installation, any location.



In offices, or for any area where quick, clean heat is required, TRANE Convectors are available in a complete range of models for free-standing, recessed or wall-hung applications.

In entryways, TRANE Force-Flo Heaters greet youngsters with warm welcome . . . blanket the doors with a friendly wall of tempered heat that blocks the cold air . . . stops chilling drafts.

A fresh air seat for every pupil in the room!

No sleepy corners . . . no stale air spots . . . no drafts! The TRANE Unit Ventilator with *Kinetic Barrier Action* stops drafts where they start—along outside windows and walls. A rising wall of warmed and tempered air is forced gently upward from the room-width extensions shown in photo at left. Air is evenly distributed throughout the entire classroom. And, unlike other systems, the TRANE *Kinetic Barrier* provides *continuous* air movement. Every pupil in the room—no matter where he is seated—has a "fresh air seat" . . . an ideal climate for learning, every minute of the day!

ventilating problem Trane equipment!

together. When you specify TRANE, you get everything you need from a reliable source; you pinpoint responsibility for the entire job! You save time and money . . . simplify maintenance. So for the best equipment for school heating or ventilating, remember: *the easy way is the TRANE way!*

Your architect knows TRANE. When you plan, ask him to specify TRANE equipment.

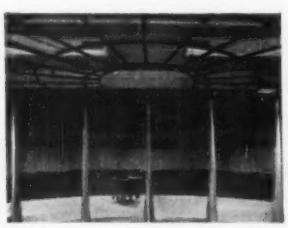
For heating, cooling, ventilating . . .
For <u>any</u> air condition, turn to

TRANE

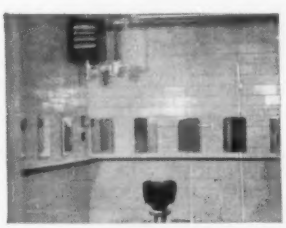
MANUFACTURING ENGINEERS

THE TRANE COMPANY, LA CROSSE, WIS. • EASTERN MFG. DIV., SCRANTON, PA.
TRANE COMPANY OF CANADA, LTD., TORONTO • 90 U.S. AND 19 CANADIAN OFFICES

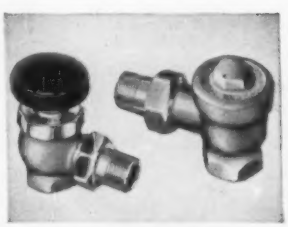
In stairways and other school areas, TRANE Convectors combine modern beauty of design and efficient operation to complement the finest in contemporary school design and architecture.



In auditoriums, where silent operation of the heating-ventilating equipment is a prime requisite, TRANE Torrivents give a whisper-quiet performance! Available in nine sizes, to 33,000 cfm.



In restrooms, TRANE Model H and P Unit Heaters put the heat where you want it! Exclusive Diffusers make it easy to control spread . . . direct the flow of warmed air where it's needed most.



In every area, TRANE Steam Specialties . . . thermostatic traps, bucket traps, strainers, valves save fuel, cut heating and maintenance costs. Designed by heating-ventilating specialists.

Norman, Oklahoma, High School and City Auditorium. Caudill, Rowlett, Scott & Associates, Bryan, Texas, and Perkins & Will, Chicago, Associated Architects-Engineers. Photos by Hedrich-Blessing Studio.

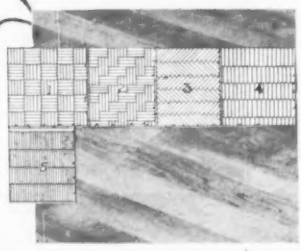
floored for
maximum usefulness!

NORTHERN HARD MAPLE

The "foot-friendly" floors of the gymnasium and the band room in this emphatically modern high school provide maximum utility, versatility and service-life expectancy. *That,* you'll agree, is a good deal to obtain in one "package." Floors of Northern Hard Maple, guaranteed as to species, grade, dimension and millwork by rigid **MFMA** standards, have delivered such value for generations. No other flooring or floor *covering* can approach this magnificent wood in its natural resistance to scars, dents and abrasion. Its bright, tight, tough, resilient character needs only simplest maintenance. Modern finishing methods give lasting luster to its beautiful grain. Floor your multi-purpose areas with **MFMA**-certified flooring. It has earned your confidence. SEE SWEET'S 13j-MA. Write for List of **MFMA**-approved Finishing Products.

the finest floor that grows

Available in blocks and modern patterned designs as well as the more conventional strip form. Readily laid in mastic, over concrete or softwood sub-flooring.

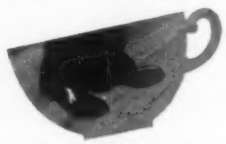


MAPLE FLOORING MANUFACTURERS ASSOCIATION
Suite 588, Pure Oil Building, 35 East Wacker Drive, Chicago 1, Illinois

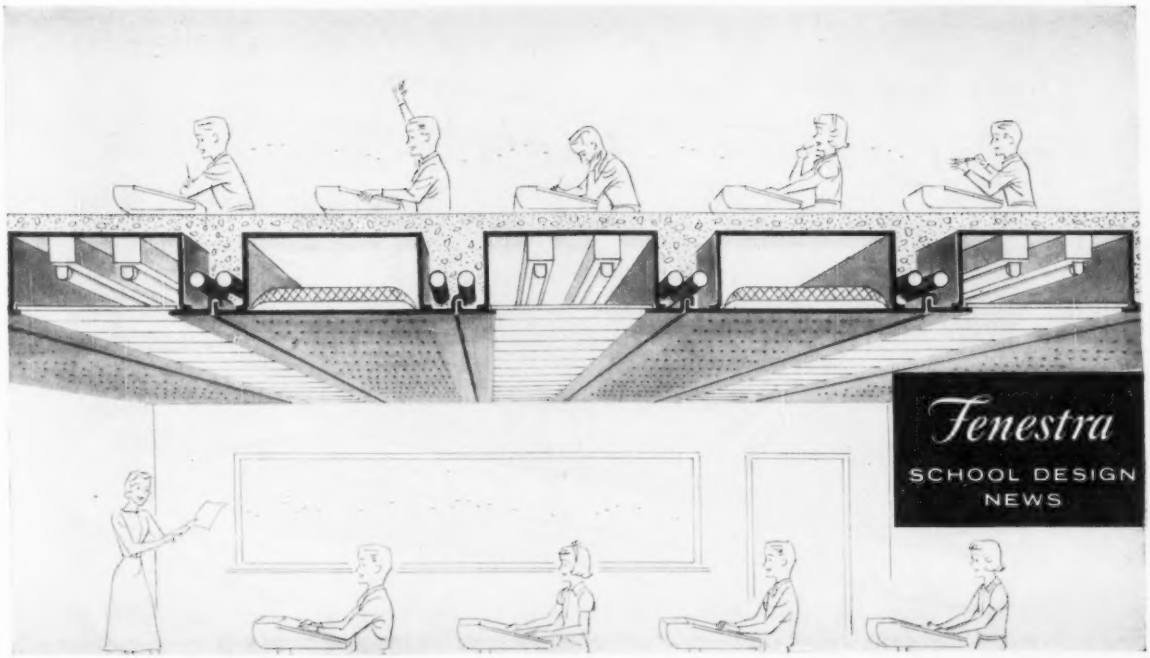
for BASKETBALL

for DANCING

for CLASS ACTIVITY



for GATHERINGS

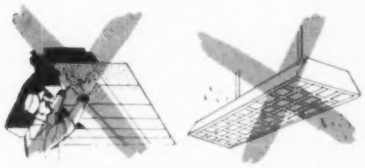


Save time and money on multistory fireproof construction with

New Way to Build Schools

New Fenestra TAC Panel System replaces

special concrete forms, expensive shoring,



separate acoustical treatment and lighting

with one multi-purpose building panel unit!

Here is an entirely new concept in the design and construction of fireproof multistory school buildings. NEW Fenestra* Troffer-Acoustical Panels give you metal pan acoustical ceilings and recessed lighting—features that usually require extra cost, time and labor—*built right in the structure itself.*

Now, instead of installing separate concrete forms with expensive shoring, separate acoustical ceilings and separate recessed lighting troffers, your contractor simply installs low-cost, long-span Fenestra TAC Panels. These modular prefabricated building panel units *replace all* these expensive materials. They are installed by one trade!

You save money on materials and labor, and your school building is completed faster. Maintenance costs are also reduced for the life of the building. The metal pan acoustical ceilings can be washed or repainted as often as needed, without affecting the acoustical treatment. There is no hanging ceiling or "stuck-on" acoustical material to be damaged or replaced.

If you are planning a multistory school of fireproof reinforced concrete construction, be sure your architect knows about Fenestra Troffer-Acoustical Panels. Show him this ad and ask him to get detailed information from your local Fenestra Representative, or mail the coupon below.

*Trademark

Fenestra INCORPORATED TAC TROFFER-ACOUSTICAL BUILDING PANELS

YOUR SINGLE SOURCE OF SUPPLY FOR DOORS • WINDOWS • BUILDING PANELS

Fenestra *Incorporated*
Dept. AS-11-2256 E. Grand Blvd.
Detroit 11, Michigan

Please send me complete information on the NEW Fenestra Troffer-Acoustical Panel System.

Name_____

School_____

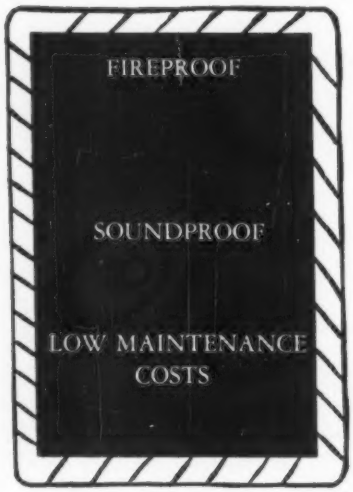
Address_____

City_____ State_____

HOW SAFE SHOULD A SCHOOL HOUSE BE?

The main objective of those who build schools today is to gain maximum safety in construction at minimum costs. Fortunately, this goal can ALWAYS be achieved in buildings constructed of

GENUINE LATH AND PLASTER



Schools that are not fireproof take chances with children's lives. Genuine lath and plaster provides a rock-like wall which cannot burn. Fire underwriters give plaster a full One Hour American Standard Fire Rating*—60 precious minutes to save precious lives.

Sound does not penetrate a well built plaster wall or ceiling. This is of major importance in the modern classroom where quiet is essential.

Genuine Plaster is solid, hard and sanitary. It offers no shelter to dirt. It can be washed over and over again and it will always respond with a new, fresh, clean look. No other wall surface is so economical to maintain.

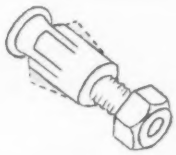
** The fire rating for conventional application of ½ inch plaster on ⅜ inch plaster lath. Other ratings using metal lath extend to as much as 4 hours.*

KNOCK ON THE WALL YOU CAN TELL IF IT'S

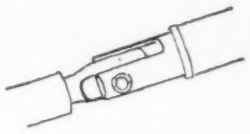
GENUINE LATH AND PLASTER

SOUTHERN CALIFORNIA PLASTERING INSTITUTE

WHY SCHIEBER FOLDING TABLES & BENCHES ARE THE OVERWHELMING FAVORITES OF SCHOOL ADMINISTRATORS & ARCHITECTS

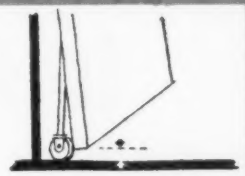


Schieber uses 800 lbs. pull test anchors, not screws, for securing tops to understructure.



Forged clevis hinges with snag-proof snap rings provide rigid, rattle-free assembly.

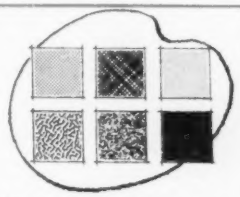
All joints are welded and welded in precision jigs.



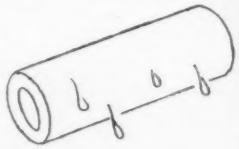
Tables and benches roll all the way into pockets on casters—do not drag last few inches.

Mark-proof rubber casters protect floors.

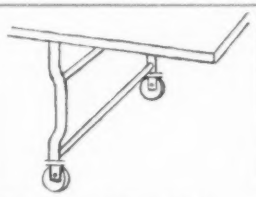
In-Wall units are counterbalanced for ease of operation.



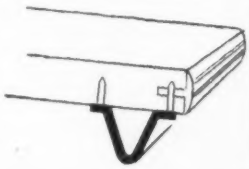
Surfaces in optional colors and patterns.



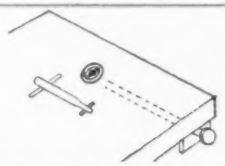
All casters equipped with permanent oil impregnated bearings—no oiling, ever.



Understructure is heavy 1-inch steel tubing with .840" wall.



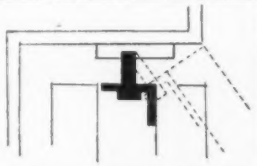
All edges finished with permanently bright "T" stainless steel moulding.



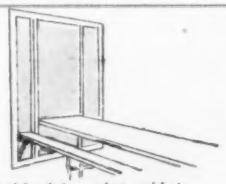
Defachable units secured in tracks with retractable roller buttons. Can't come out unless intentionally detached.

Center casters are swivel type for easy maneuvering of detached tables and benches.

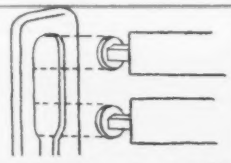
Benches reinforced by four (not two) longitudinal, formed steel stringers.



Safety catch prevents folded units falling from pocket when being operated.

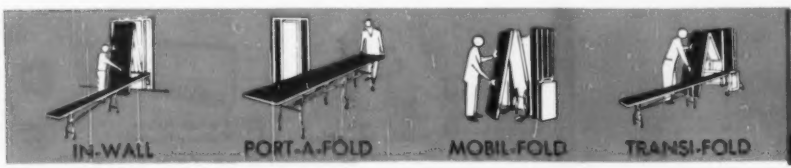


Steel back in pockets adds to rigidity, eliminates contractor finishing.



Any height unit may be returned to any pocket. Welded-on (not cut outs) tracks have long keyhole slots.

Quality top quality, is assured when Schieber is specified. Standards on materials and workmanship are based on first hand knowledge of the nature of school use and what it requires. Schieber originated the multi-purpose room (lunch room-activities area) folding tables and benches and our engineering, development and research has always led the field. As evidence, never has one penny been spent for service on a Schieber unit except where normal wear occurred over a long period of time and the first installation ever made, 25 years ago, is still in daily use. Thousands of schools now use this equipment and more than a thousand school architects have specified it, most of them many times. Let us answer your questions or better, write for our booklet: "Twenty Questions—and Answers."



25

Schieber
SALES COMPANY
Detroit 39, Michigan

Representatives in all areas—U. S. & Canada

Any Fuel . . . Any Climate . . .

There is a HERMAN NELSON to Give You More Classroom

HOT WATER OR STEAM

Herman Nelson Unit Ventilators with patented DRAFT|STOP control downdrafts *without adding to the heat load*, provide ideal classroom climates. Proved in thousands of schools using either hot water or steam. Hot water systems provide for Wall-Hung, Cabinet-Base, or Recessed-Edge piping.

GAS

New UNIvent Gas School Ventilator provides all the health and comfort features of the DRAFT|STOP system in a completely self-contained unit. Easily and quickly installed, this unit is ideal for temporary or short-term use buildings. It also has obvious advantages where natural gas is abundant.

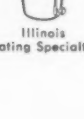
MILD CLIMATES

AMERVENT built especially for schools in mild climate areas, provides fresh air cooling, heating and ventilating within the nominal cost of heating alone. Schools do *not* pay for *unneeded heating capacity*, and gain super-cooling which brings in 30% more fresh air during hot weather.

AIR CONDITIONING

The HerNel-Cool unit provides mechanical cooling, heating, ventilating or natural cooling as required. Thoroughly tested in hot, humid climates, HerNel-Cool units have exceeded every requirement. Units can be installed now where needed most and the system extended at any later time.

BETTER AIR IS OUR BUSINESS



Illinois Heating Specialties

Herman Nelson Console Heaters

Herman Nelson Portable Heaters

Unit Specifically Designed Comfort per Dollar

Complete line covers hot water, steam, gas, air conditioning and mild climate requirements

Herman Nelson now offers a line from which you can select the ideal unit for meeting any school's requirements! The cooling, heating, ventilating system can be "tailored" to provide true classroom comfort in the most economical and most practical way.

In temperate or cold climates, the **Herman Nelson Unit Ventilator**—operating with either circulating high temperature hot water or steam—has proved its superiority in thousands of schools. The patented DRAFT STOP system has given a new meaning to "classroom comfort" as it controls down drafts and automatically provides a constant supply of properly **heated** or **cool** fresh air.

Now the **UNIvent Gas School Ventilator** is added to the famous DRAFT STOP family. For certain new schools (or remodeled old ones) its advantages are apparent. It is completely self-contained and is ideal for temporary or short-term use buildings. It also has obvious advantages where natural gas is abundant. The **UNIvent Gas School Ventilator** is easily and rapidly installed and is approved by AGA for use with natural, mixed, manufactured or LP gas.

Hot weather air conditioning in schools is becoming more important every day. **HerNel-Cool** units offer an economical and practical solution to this problem. Most of the year they provide heat, ventilation or natural cooling (with outside air) as the room requires. In hot weather, the units switch automatically to mechanical cooling with chilled water circulating in the same piping that carries hot water during cold weather.

Schools in mild climates have an **increased** cooling and ventilating problem and a **decreased** heating problem. The Herman Nelson **AMERVENT** was designed just for them. These schools can now enjoy **all** the essentials for classroom comfort—cooling, heating and ventilating—without paying for the excess heating capacity required where frigid winter temperatures are encountered.

Flexibility will always be important to Herman Nelson—for there is no "one best" system to provide for heating, ventilating and cooling classrooms. The health and comfort of pupils and teachers come first. The design, structure and location of each school will indicate the most economical and practical system to achieve that ideal classroom atmosphere.

Would you like more information? Ask your Herman Nelson representative or write to Herman Nelson Products, American Air Filter Company, Inc., Louisville 8, Kentucky.

AAF

herman nelson AMERICAN AIR FILTER COMPANY, INC.

UNIT VENTILATOR PRODUCTS

American Air Filter Company, Inc., System of Classroom Cooling, Heating and Ventilating

Herman Nelson Heating, Ventilating Units

Herman Nelson Unit Blowers

Herman Nelson Horizontal Unit Heaters

AAF Dust Control For School Shops

Herman Nelson Vertical Unit Heaters

School superintendent tells you:

"HOW TO KEEP CHILDREN FROM FEELING SQUASHED"

You might say the teachers designed Unit #5 of the Mason Consolidated Schools in Erie, Michigan.

But so did the pupils. And their parents. For a year before a single plan was drawn, they discussed every facet of what was wanted in *their* new school.

In these meetings, the teachers talked about the best ways of teaching, the taxpayers talked about taxes, the parents talked about their children and how they felt about school. And the architects, Jahr-Anderson Associates of Dearborn, listened. Then with their experience and technical skill they actually created the building that everyone wanted.

But let Superintendent Charles Dove express it:

"We wanted a friendly atmosphere in this school, as inviting and unforbidding as possible. We wanted to keep our children from feeling squashed—no matter where they were sitting or standing or moving around.

"Our architects designed exactly the type of school we wanted. One of the most *important* things they gave us were the Daylight Walls. This clear glass from sill to ceiling on both sides of the classroom makes the room look larger and imparts *no sense of being closed in.*

"Our teachers love teaching in this school. Even visitors feel more relaxed as soon as they enter.

"And the children are *proud* of their school—despite the vast amount of glass, *there has been no breakage.*"

If you're planning a new school, why not tear out this page and take it to your next meeting. And if you would like, we'll send you a free copy of our Daylight Wall booklet, M-12. It is packed with pictures and information on design and lighting.

Write to Dept. 40116, Libbey·Owens·Ford Glass Company, 608 Madison Ave., Toledo 3, Ohio.

LOF GLASS

DAYLIGHT WALLS

LIBBEY • OWENS • FORD • *a Great Name in Glass*

New concepts in custom-built schools, achieved with Luria standardized steel frames

CREATIVE SCHOOL ARCHITECTURE AND LURIA BUILDINGS

Old Town, Maine High School

Interior of Gymnasium wing

Interior of Home Economics section

THE WORK OF MAINE ARCHITECT ALONZO J. HARRIMAN

The creative designs of Architect Alonzo J. Harriman, A.I.A., of Auburn, Maine, distinguish many types of structures. His schools, which are nationally known for their functionalism, handsome design and economical construction, are particularly good examples of his work.

Good school designing requires the individuality of custom-built structures. Yet, today's school shortage dictates economical construction and speedy erection. School architects from coast-to-coast are achieving both goals . . . with the use of Luria steel structures. More and more of today's handsome, custom-designed school buildings utilize the Luria system of standardization. To get the *complete* Luria story, write or telephone your nearest Luria office for a catalog or personal call.

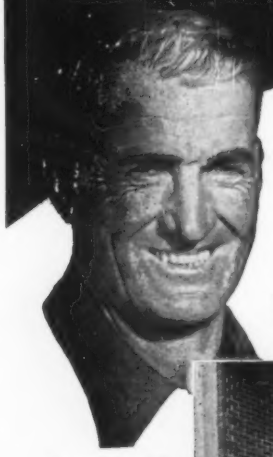
LURIA ENGINEERING Company

511 Fifth Avenue, New York 17, New York • Plant: BETHLEHEM, PENNSYLVANIA
District Offices: ATLANTA, PHILADELPHIA, BOSTON, CHICAGO, WASHINGTON, D. C.

"We saved over 1600 man hours using 'UP-RIGHT' SCAFFOLD-ON-WHEELS"

NEW, FASTER, SAFER WAY TO GET UP IN THE AIR AND ROLL WITH THE JOB.

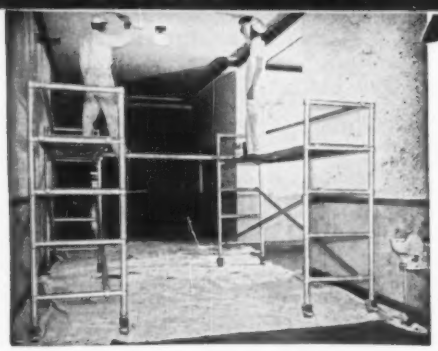
In minutes, a mobile tower of any height desired is erected by setting individual sections one on top of the other. The one-piece folding sections are quickly assembled without tools, wing nuts or bolts.



"Our summer program of overhead building and classroom maintenance that formerly took 13 weeks is now completed in only 8 weeks thanks to Up-Right's mobility and rapid assembly!"

Stairways are taken in stride . . . legs instantly adjustable for perfect leveling of platform.

UP-RIGHT SPAN SCAFFOLDS



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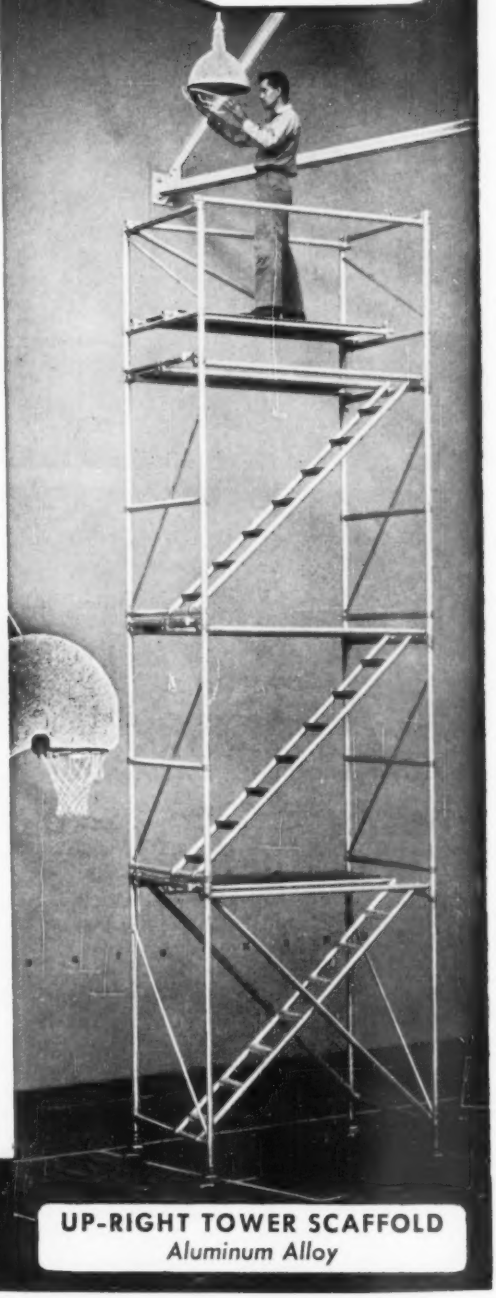
"Two 10 ft. span scaffolds pay for themselves on any school paint job of 6 rooms or more," *says Leonard T. Anderson, painting contractor, Turlock, California.*



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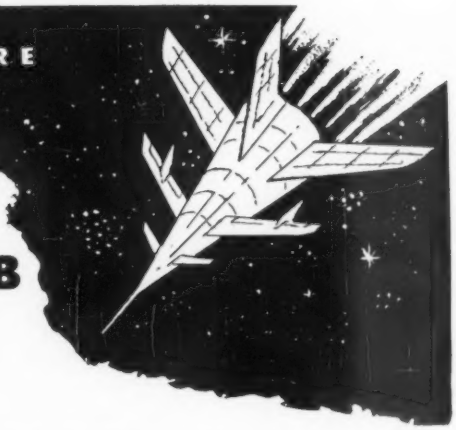

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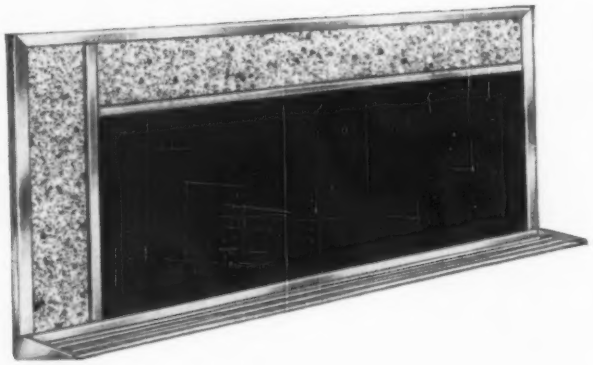

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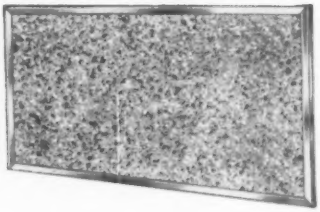

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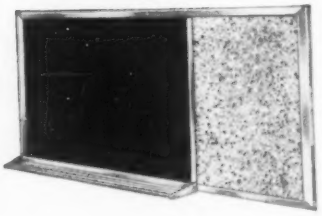

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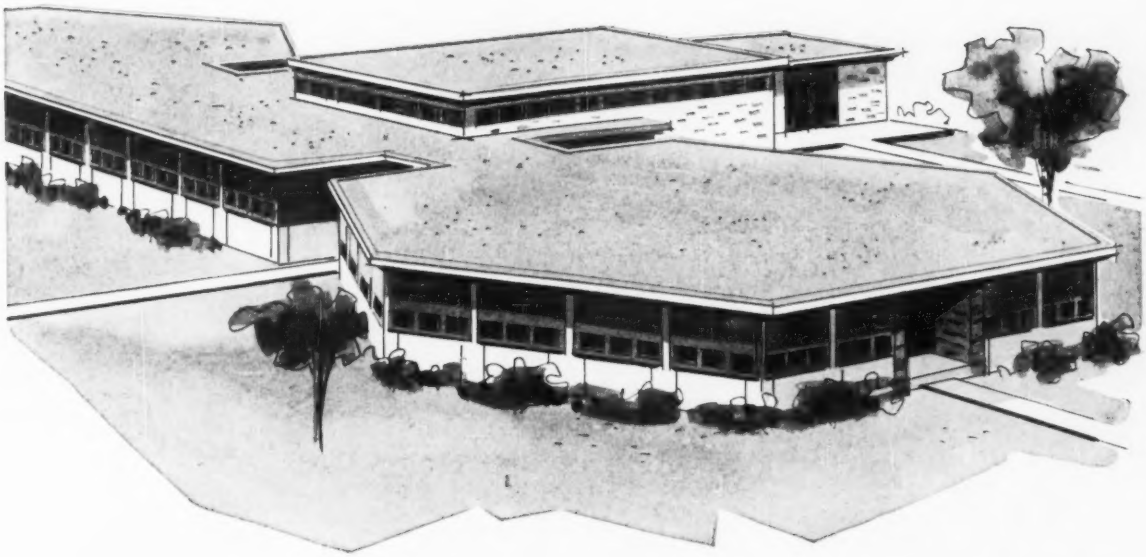

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Stran-Steel structural systems substantially cut construction costs for 3 new Ohio schools

This handsome Northeast Elementary School in Findlay, Ohio, only looks expensive. It cost substantially less than traditional types to build, yet it combines prime quality construction with the newest functional design.

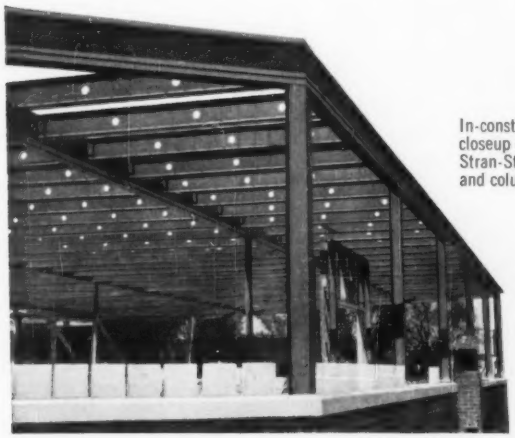
How can this be done?

The answer is Stran-Steel's system of fully integrated components. Joists, "C" sections, studs, channels, roof decking and sidewalls are made for each other. But the biggest cost-saver is the nailing groove. Stran-Steel's distinctive nailing groove makes it possible to nail collateral materials directly to the framing without special tools.

This fall three new schools of similar design will provide an additional 50,000 square feet of space for the school children of Mendon and Findlay. An annex to Whittier Elementary School and an addition to the Mendon-Union Local School, as well as the complete new Northeast Elementary School are of the hexagonal Maximlite design and built with Stran-Steel framing members. Maximlite design achieves maximum use of natural lighting, the most economical and flexible use of space and an attractive appearance inside and out.

Because the Stran-Steel structural system is adaptable to all types of construction, it can be used for complete new schools or an addition to the buildings you already have. With Stran-Steel, you will always have an attractive, durable, fire-safe structure. And design possibilities are limited only by your imagination.

Ask your architect to show you how these structural systems can fit into your school building plans. All Stran-Steel architectural products are available from a dealer near you.



In-construction closeup of Stran-Steel joists and columns.

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Mr. Citizen Joins the School Team

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Compiled and edited from the pick of school board articles by many authorities which have appeared in recent years in THE AMERICAN SCHOOL BOARD JOURNAL, it takes "Mr. Citizen" through all the vital, if confusing, maze of duties, routine, and problems which beset a conscientious citizen trying to become a member of the "school team."

Recent meetings of the National School Boards Association and the American Association of School Administrators have proved the need for an inexpensive and authoritative *national* guide for school board members. *Mr. Citizen Joins the School Team* is designed to answer this need.

68 pages, 8⅜" x 11¾", $1.00 each
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The American School Board Journal
Milwaukee 1, Wisconsin

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1957 JANUARY
ANNUAL SCHOOL BUILDING NUMBER

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For many months the Editors have been putting together what will be the best and most comprehensive coverage of school building and planning ever published. Every area will be included with articles by men like Donald L. Essex, Frank C. Gilson, S. J. Knezevich, Francis Cornell, George H. Bush, Sol Levin, A. J. Foy Cross, Francis Darby, and many others of the same calibre.

Here are the general subjects to be covered: Site, School Design, School Planning, Finance and Bonding, Department Facilities, Heating and Air-Conditioning, Lighting, Purchasing Equipment, History, Planning for Audio-Visual Education, School Lunch Trends, Floor Maintenance Survey — plus approximately ten well-illustrated articles on new schools.

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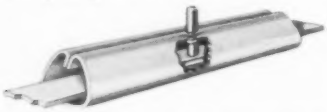
1. 20-gauge steel is cold-rolled into a rigid triangular tube for the bridge-like structure of these chairs. Front legs and chair back are one continuous section of tubing. Back legs are of same tubing, permanently hinged.



2. Steel reinforcing bar inside legs extends above and below hinge rod, equalizing load from seat to frame.

3. Spherical, heavy-drawn-steel glides are crimped permanently around legs and covered by heavy tread-rubber shoes, locked in place – won't come off in use; no slipping; no marring.

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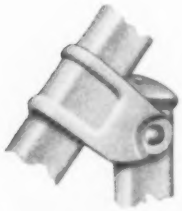
Seven reasons why American Seating Folding Chairs outlast all others!

5. Silent, non-pinching, non-sliding hinge is one of the most important safety, strength and convenience features.



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THE AMERICAN
School Board Journal
A Periodical of School Administration

NOVEMBER - - - - - - 1956

Lexington Moves Toward Merit Rating

JOHN BLACKHALL SMITH

Superintendent of Schools
Lexington, Mass.

Merit Rating Impossible? After years of study, the Lexington, Mass., Teachers' Association, encouraged by the superintendent and the board, developed a salary schedule with provisions for rewarding the "better than average teacher," as well as for a satisfactory evaluation plan. While the Lexington plan will undoubtedly be subject to adjustments, it represents probably the first concrete step forward in the solution of our merit rating teacher salary problems.

After three years of consideration and discussion, and more than a year of study and development, the Lexington salary schedule, effective September 1, 1956, will contain provisions for rewarding "the better than average teacher." At this writing, actual evaluations have been completed on all teachers eligible for consideration at this time. The program is no longer in the talking-planning stage — it is a reality.

Development of the Plan

Historic Lexington, with its residential population of about 22,000, is no different than any community faced with yearly demands by teachers for salary increases. There were many citizens asking the school committee the familiar question: "Sure we want to pay teachers more, but why can't you recognize the superior teacher?" Feeling has prevailed on the school committee for a number of years that, while general increases were a necessity, something more should be done for the outstanding instructor. There was evidence, too, that there were teachers impatient with the lock-step philosophy of the prevailing salary schedule.

As early as the spring of 1953 the personnel policy committee of the Lexington Teachers' Association discussed competence and merit rating with the superintendent at regular monthly meetings. The subject was presented to teachers at building meetings and at the Teachers' Association general meetings. After an agreement on a salary schedule revision in December of 1954, the school committee stated that the next salary request by teachers should make provision for recognizing outstanding teaching. This informal directive caused Lexington teachers and administration to consider earnestly the matter. Further impetus was given when the school committee asked the superintendent of schools to organize a Committee of Five consisting of three teachers, a school committee member, and the superintendent of schools, whose task would be to recommend to the school committee a scheme for rewarding superior teachers.

In the meanwhile, the Lexington Teachers' Association had appointed a committee of 18 men and women to represent all interests in the staff of 184. This group was charged with the task of drawing up an "evaluation plan" that would be acceptable to the teachers. This action came after a strong majority of the teachers had voted in favor of a salary plan that would have merit provisions. Early in the fall of 1955 this committee presented an evaluation plan to the Committee of Five. That group, after study of the proposal, offered the plan to the Lexington school committee.

Since early in September of 1955 in anticipation of a merit program the school committee and superintendent had been revising the salary schedule with the following purposes in mind:

1. **Minimum and maximum to retain superior teachers and to attract fine people to Lexington;**
2. **Reduction of steps or years to reach maximum;**
3. **Inclusion of some larger increments;**
4. **Provision for further reward to outstanding teachers after a period at maximum;**
5. **Guarantee of a respectable maximum attainable by *all* teachers.**

Soon after receiving the evaluation plan from the Committee of Five, the school committee agreed that in general the proposal was acceptable, and in turn announced the schedule that would be in effect should the merit program receive teacher acceptance. This met with the approval of the Teachers' Association.

For a period starting shortly before Christmas and until almost the end of January, many meetings were held:

1. Personnel policy committee and superintendent;
2. Teachers' Association;
3. Committee of Five;
4. School committee and superintendent;
5. Evaluation plan committee;
6. Building faculties; and
7. School committee, superintendent and representatives of the evaluation plan committee.

Many questions were raised and a number of compromises made before the superintendent of schools on January 27, 1956, issued a general notice that all parties were in agreement. The revised plan was sent to all teachers with detailed explanations on points that had required clarification.

During this time the personnel policy committee of the Teachers' Association had been authorized by the teachers to take whatever actions appeared to be beneficial to the entire staff.

On March 20, 1956, another notice informed teachers that the 1956 School Budget had had unanimous Town Meeting approval and Lexington was ready to experiment with merit rating!

As we look back over the development period, we recognize some weaknesses in our procedures, but we modestly recognize that we were careful in the most important matters:

1. We took plenty of time — three years from the discussion stage to actual operation of the program;
2. We kept all teachers informed — many meetings, several groups reporting, and lots of repetition in written notices; and
3. We provided for a wealth of teacher-participation — evaluation plan committee, all teachers; Committee of Five, three teachers; personnel policy committee, all teachers, and the superintendent of schools.

The Salary Schedule

Lexington for a number of years has had a salary schedule listing three levels. In addition, there prevails a $200 differential for male teachers.

Level II is the schedule for a woman with a bachelor's degree, Level III for one holding a master's degree, and Level IV for a person who has 30 acceptable credits beyond a master's degree. In revising the salary schedule the Lexington School Committee added for each level a new column with the suffix "A." This, as explained to the teachers, is the guaranteed schedule. All teachers, regardless of performance, will progress yearly without interruption on the levels with the suffix "A." There will be no need of any teacher taking extra courses or fulfilling any particular requirements. A simple yearly progression will make possible the achievement of the maximum at Step 18.

The level without the suffix "A" is actually the schedule under which the evaluation plan operates. The evaluation steps are 3, 7, and 10. During the years that a teacher is on Step 3, 7, and 10 she will be subjected to the mechanics of the evaluation plan and if recommended for the merit increment will receive the added amounts for the coming year. At the completion of the third year a new teacher would receive a $400 increment. This would actually be automatic because it is at this stage that a teacher goes on tenure, and the determination of tenure status is left entirely to administration and is not part of the evaluation program.

At the completion of the seventh year and with the recommendation for a merit increase, a teacher will receive a $500 increment, and at the completion of Step 10 there will be a $300 merit raise.

The salary schedule further provides that after three years on maximum pay a teacher becomes eligible for further evaluation, and if successful, receives an additional $300. This procedure is followed at two more three-year intervals, so that after reaching the maximum, a teacher under the salary schedule and the evaluation plan may look forward to an additional $900.

The Lexington school committee recognized that the salary schedule, effective September 1, 1956, could not be classified as an exceptional one, but agreed that it would be highly competitive in the Metropolitan Boston area. It was believed that the reduction of the steps under the merit program to reach maximum and the $900 available beyond the maximum would attract good teachers and serve as an inducement for outstanding teachers to remain in the Lexington schools. It has been acknowledged that this schedule will need to be revised upward in the years to come.

	Women						Men					
Steps	Level II	Level IIA	Level III	Level IIIA	Level IV	Level IVA	Level II	Level IIA	Level III	Level IIIA	Level IV	Level IVA
I	$3100	$3100	$3300	$3300	$3500	$3500	$3300	$3300	$3500	$3500	$3700	$3700
II	3250	3250	3450	3450	3650	3650	3450	3450	3650	3650	3850	3850
III	3400	3400	3600	3600	3800	3800	3600	3600	3800	3800	4000	4000
IV	3800	3800	4000	4000	4200	4200	4000	4000	4200	4200	4400	4400
V	3900	3900	4100	4100	4300	4300	4100	4100	4300	4300	4500	4500
VI	4000	4000	4200	4200	4400	4400	4200	4200	4400	4400	4600	4600
VII	4100	4100	4300	4300	4500	4500	4300	4300	4500	4500	4700	4700
VIII	4600	4200	4800	4400	5000	4600	4800	4400	5000	4600	5200	4800
IX	4700	4300	4900	4500	5100	4700	4900	4500	5100	4700	5300	4900
X	4800	4400	5000	4600	5200	4800	5000	4600	5200	4800	5400	5000
XI	5100	4500	5300	4700	5500	4900	5300	4700	5500	4900	5700	5100
XII		4600		4800		5000		4800		5000		5200
XIII		4700		4900		5100		4900		5100		5300
XIV		4800		5000		5200		5000		5200		5400
XV		4900		5100		5300		5100		5300		5500
XVI		5000		5200		5400		5200		5400		5600
XVII		5100		5300		5500		5300		5500		5700

NOTE: After a teacher has been at maximum for three years, he is eligible for an evaluation which, if successful, grants $300 additional. Two more such increases may be secured at three-year intervals. This means that a potential $900 is available beyond the maxima shown on these schedules.

The salary schedule of the Lexington, Mass., schools. It shows the relationship of the two levels, the one marked "A" being the regular schedule, the other incorporating the merit plan. Education places the teacher on level II, III, or IV.

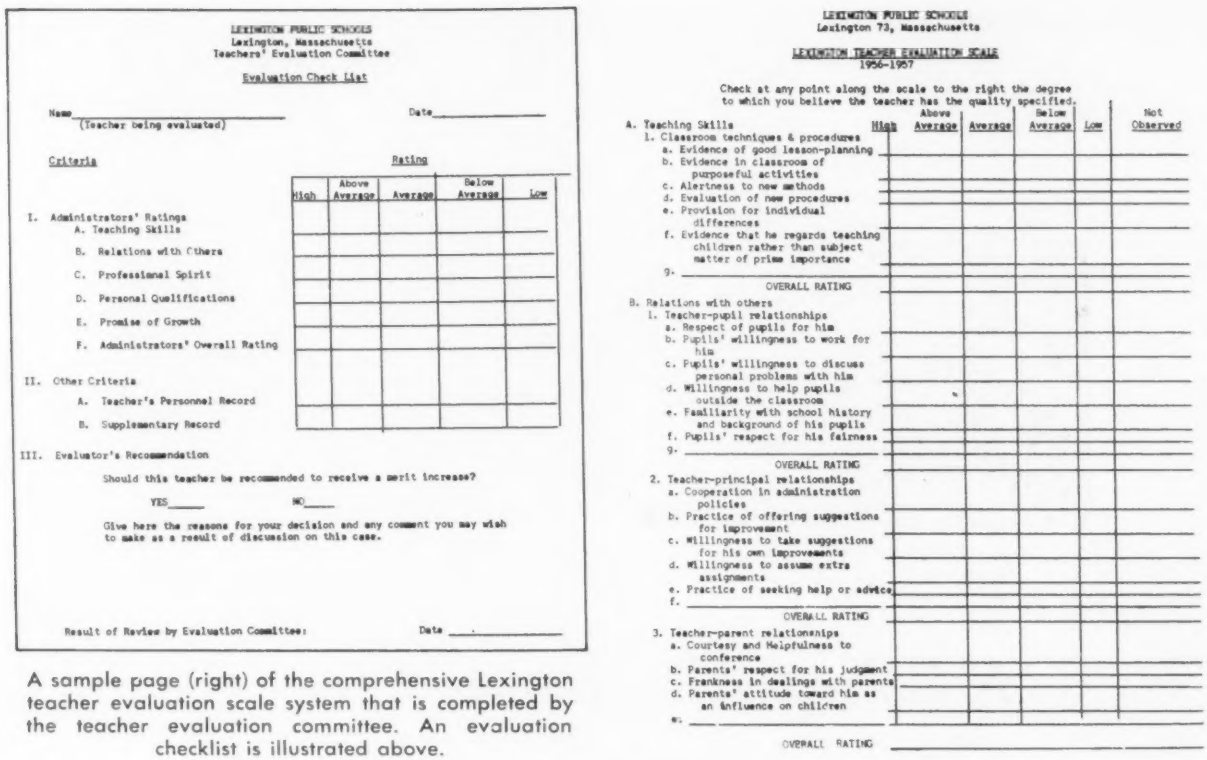
The Evaluation Plan

The evaluation plan as finally adopted is presented in six pages of duplicated material. In addition, an evaluation scale is three pages in length and another page is used by the evaluation committee for rating purposes. All teachers have received copies of all the materials used. There have also been several releases from the superintendent's office explaining sections that were insufficiently detailed.

The evaluation plan requires that a yearly report be submitted on the approved evaluation scale by each principal and supervisor for every teacher under his or her direction. These reports are filed in the superintendent's office and are made available only to the evaluation committee at the time the teacher becomes eligible for merit rating. This, as has been explained, occurs when a teacher arrives at Step 7 and 10, or after serving three years at maximum.

Before a principal, supervisor, or department head files an evaluation report a conference with the teacher must be held and the report covered thoroughly. The teacher signs the report, which simply indicates that she has read it and a conference has been held. She may then file a statement expressing her opinion of the report or conference.

In addition to the reports filed by



LEXINGTON PUBLIC SCHOOLS
Lexington, Massachusetts
Teachers' Evaluation Committee

Evaluation Check List

Name_____ Date_____
(Teacher being evaluated)

Criteria	Rating				
	High	Above Average	Average	Below Average	Low
I. Administrators' Ratings					
A. Teaching Skills					
B. Relations with Others					
C. Professional Spirit					
D. Personal Qualifications					
E. Promise of Growth					
F. Administrators' Overall Rating					
II. Other Criteria					
A. Teacher's Personnel Record					
B. Supplementary Record					

III. Evaluator's Recommendation

Should this teacher be recommended to receive a merit increase?

YES_____ NO_____

Give here the reasons for your decision and any comment you may wish to make as a result of discussion on this case.

Result of Review by Evaluation Committee: Date _____

LEXINGTON PUBLIC SCHOOLS
Lexington 73, Massachusetts

LEXINGTON TEACHER EVALUATION SCALE
1956-1957

Check at any point along the scale to the right the degree to which you believe the teacher has the quality specified.

	High	Above Average	Average	Below Average	Low	Not Observed
A. Teaching Skills						
1. Classroom techniques & procedures						
a. Evidence of good lesson-planning						
b. Evidence in classroom of purposeful activities						
c. Alertness to new methods						
d. Evaluation of new procedures						
e. Provision for individual differences						
f. Evidence that he regards teaching children rather than subject matter of prime importance						
g. _____						
OVERALL RATING						
B. Relations with others						
1. Teacher-pupil relationships						
a. Respect of pupils for him						
b. Pupils' willingness to work for him						
c. Pupils' willingness to discuss personal problems with him						
d. Willingness to help pupils outside the classroom						
e. Familiarity with school history and background of his pupils						
f. Pupils' respect for his fairness						
g. _____						
OVERALL RATING						
2. Teacher-principal relationships						
a. Cooperation in administration policies						
b. Practice of offering suggestions for improvement						
c. Willingness to take suggestions for his own improvements						
d. Willingness to assume extra assignments						
e. Practice of seeking help or advice						
f. _____						
OVERALL RATING						
3. Teacher-parent relationships						
a. Courtesy and Helpfulness to conference						
b. Parents' respect for his judgment						
c. Frankness in dealings with parents						
d. Parents' attitude toward him as an influence on children						
e. _____						
OVERALL RATING						

A sample page (right) of the comprehensive Lexington teacher evaluation scale system that is completed by the teacher evaluation committee. An evaluation checklist is illustrated above.

principals, supervisors, and department heads, each teacher files a supplementary teacher's record. This statement makes provision for reporting any professional activities that she may have participated in and allows her to record any items that she feels should be brought to the attention of the evaluation committee. This is supplementary to the official office records of the teacher, which are also made available to the evaluation committee.

All reports on a teacher are presented to the evaluation committee for analysis and study sometime during the year prior to the teacher's eligibility for a merit rating. The evaluation committee meets regularly twice a month to go over all the information and to take whatever action appears advisable.

The evaluation committee consists of seven individuals — four of whom are teachers appointed by the executive committee of the Teachers' Association — and one principal, one school committee member, and the superintendent of schools. With the exception of the superintendent of schools, each member has an alternate who may sit in on all meetings but who is not eligible to vote. Teachers appointed by the Teachers' Association serve a two-year term.

It is the task of the evaluation committee to consider the evaluation reports as submitted by the principals, supervisors, and department heads and also to consider the official and supplementary records of the teachers. After deliberation and discussion, each committee member files a written evaluation report summarized by his recommendation for a merit increase. A majority vote is necessary on each teacher.

The final action of the evaluation committee presents to the school committee through the superintendent the list of teachers recommended for a merit increase. It then becomes the responsibility of the school committee to determine whether all of the recommendations are to be approved.

In order to be recommended for the additional amount, a teacher must be rated as "above average." This means that in the eyes of the evaluators and the evaluation committee the teacher's performance is above average for those in the Lexington school system.

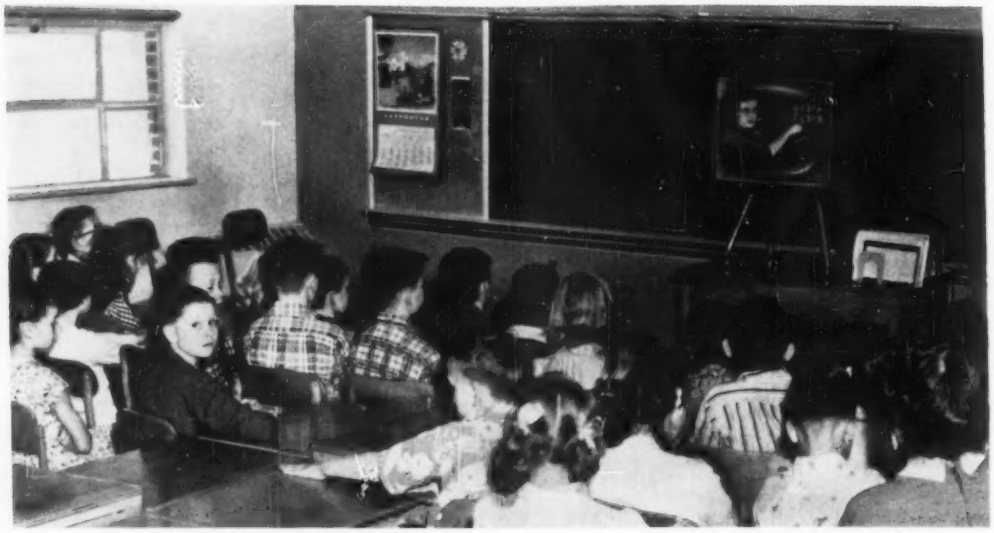
The evaluation plan offers an opportunity for a teacher to have her case reviewed by the committee should the recommendation not be in her favor. The committee also has the right to request any of the evaluators to appear before the committee for questioning and discussion.

The evaluation committee has the responsibility to yearly review the merit plan and to forward to the school committee recommendations for improvement.

It is, of course, too early to report objectively on Lexington's Merit Plan. Forty-seven evaluations and conferences have been held, and the evaluation committee has met eight times to fulfill its functions. Principals and supervisors report an average of two hours to write a report and hold a conference. Evaluation committee meetings have averaged slightly over three hours.

There have been a few repercussions from teachers who felt they were not rated "high," even though they were judged "above average," the standard necessary for merit increment. Here and there a supervisor has requested clearer definition of terms. There is apparently need for more interpretation meetings for the evaluators. The evaluation committee has been faced with weighing conflicting reports in several instances. In general there are sufficient problems to warrant the continuance of slow action and careful consideration. Above all is the necessity of close communication with the entire staff; information and detailed explanation are essential.

Whether or not this exploratory plan will succeed is not yet apparent. General opinion indicates that a three-year trial is needed and many adjustments may be expected. Certainly it can be said at this time that the Lexington staff realizes that reward for meritorious or superior teaching must be recognized, and in a professional manner experimentation is accepted.



In Pocatello's Lewis-Clark school, these youngsters, along with those in this Idaho city's other ten elementary schools, receive instruction over a closed circuit educational TV network.

A College-Elementary School Closed Circuit T-V Network

HARRY J. MILLER

Sarasota, Fla.

This link between Idaho State University and public schools in Pocatello, Idaho, was witnessed simultaneously recently by youngsters in 11 different elementary schools in the nation's first demonstration of a completely "televised" public school system. It enabled one teacher standing before a TV camera in the college's video studio, to instruct over 300 students at one time.

Although many universities have experimented with closed circuit television within their campus buildings, Idaho State University is the first college in the United States to install a complete public school network.

Idaho state college students interview Gov. Smylie (in front of flag) on state government in one program carried on the Jerrold closed circuit TV system in Pocatello.

Via a community antenna system which brings three television channels into this college town, signals are picked up on an antenna tower and delivered to subscribers over a coaxial cable. Since the college studio is also connected to the community antenna, this means that educational programs can be watched by youngsters and parents right in their own homes.

The new network also makes it possible for a few specialized teachers who formerly traveled from school to school, to reach a much larger student body by broadcasting from the Idaho State College studio.

Visual aids like films and slides, shown over 21-inch TV sets in the special classrooms set aside for TV teaching, make it possible for a single film library to be set up in the college studio. This releases funds formerly spent on duplicate films and equipment.

WHAT MAKES EDUCATION VOCATIONAL?

J. F. INGRAM

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The characteristics of vocational education in its relationship to general education are considered in this re-definition

Vocational education has meant different things to different people. There are those who insist that all education is vocational. They argue that being able to read, write, and do simple calculations in arithmetic is necessary in most present-day employment; therefore, reading, writing and arithmetic are vocational education subjects. The importance and necessity of these abilities cannot be denied. Certainly vocational educators would be the last to deny their importance to workers. In the sense that education is preparation for and adjustment to life, and work is a major factor in everyone's life *all* education *can* be thought of as vocational preparation in a very broad, general sense. (Perhaps it might greatly improve education if it *were* looked upon realistically as preparation for and adjustment to working.)

There are also those who believe that vocational education is confined to training of the hands only. They visualize vocational education simply as practicing certain routine physical manipulations until a suitable degree of perfection of skill has been reached, or until performance becomes almost automatic. Of course development of manipulative skills is important. It is a basic *part* of any vocational course. Development of the routine skills of an occupation is not, however, a true or complete concept of vocational education.

A special concept of vocational education has evolved since the passage of the Smith-Hughes Vocational Education Act of 1917. The activities and philosophies leading up to the passage of that and subsequent federal laws relating to vocational education have helped to establish a definition of vocational education, as differentiated from general education at the secondary school level.

Proficiency in Specific Occupations

Vocational education has come to be accepted as that phase of education designed to improve the proficiency of an individual for and/or in a specific occupation. It is either preparatory for specific employment or supplementary to the work of those employed in a specific occupation. It is not restricted to boys and girls in secondary schools but is provided for any youth or adult who needs and can profit from vocational instruction.

Subject-matter-wise, there is no clear-cut line of demarcation between general and vocational education. Much that could be vocational education is found in the so-called general education subjects. However, no general education subject, per se, can properly be con-

sidered as vocational education subject matter, nor can vocational education ever be truly general education.

It is perhaps here that most people get lost in their thinking about general and vocational education. The true difference between them is not based upon the quantity or quality of education nor upon the subject matter. The difference is one of objectives.

Vocational education includes instruction in subject-matter areas that apply to the work of an occupation at the time it is needed in its application and relation to such work. Vocational education also includes the mastery and development of the "doing" skills of the occupation. Otherwise, subject matter could not be related and applied to the work of the occupation.

That which is vocational education for one person may not be vocational for another person. For instance, an electrician needs to know Ohm's Law of Physics in order to perform his job. If taught to an electrician, or one intending to become an electrician, it is vocational. But it is not at all necessary for a carpenter or sheet-metal worker to know Ohm's Law. Regardless of when or how it is taught to these workers, it is not vocational education. Nor is it vocational education when a unit on Ohm's Law of Physics is included in a course given to all high school students as a desirable part of their understanding of our scientific and technological industrial society. Furthermore, Ohm's Law, as a unit of instruction, is not really vocational education for a student in an electrical trade *unless* it is taught and learned at the time it is needed and in its relationship and application to the work of an electrician.

Five Characteristics

The real characteristics of vocational education, which set it distinctly apart from general education, are the following:

1. Education is vocational when it is designed specifically to improve the efficiency of an individual in a specific occupation — either as preparation for employment or supplementary to the duties of employed workers.
2. Education is vocational when it is taught and learned in its relations and applications to the actual work of a specific occupation.
3. Education is vocational when it is of more value to one who will pursue or is pursuing a specific occupation than to anyone else.
4. Education is vocational when it is so timed that the learner needs it and will apply it to useful and productive work in a specific occupation at the time it is learned.
5. Education is vocational when the necessary skills and knowledge of a specific occupation are being taught and learned in their practical and proper relationships.

Some may call this a narrow concept of vocational education, and perhaps it may be. But the modern concept holds that the specific purpose of vocational education is to fit individuals for useful employment. It recognizes that vocational education is intended to prepare people for initial employment and to provide training supplementary to the daily work of employed workers. If these are the purposes and intent of vocational education, there can be no other definition of its content.

Actually, this concept is as broad as are the needs of the individual in becoming an efficient worker in his chosen occupation. Under this concept, the content of a vocational course for an individual learning an occupation can and should include anything and everything, from any and every source, which will add specifically to his proficiency in his chosen occupation. Such a course may include some physics, some English, some mathematics, some chemistry or biology, if and as such information is needed to make him a more efficient worker. Only that information should be incorporated which can be shown to make a direct and specific contribution to increasing the efficiency of the learner in a chosen occupation. Furthermore, it should be presented and taught in its specific relationships and applications to job performances in a specific occupation.

The public's growing trend of expecting education to do all things for all people is responsible for the notion, expressed by some educators, that every vocational course should include units on grammar, penmanship, spelling, good manners, and the like. These *are* important areas of instruction and should not be neglected by our schools. However, in a vocational course, these competencies should remain as by-products rather than be incorporated as planned units of the instructional program.

Incorporated Effects

Every vocational instructor should insist upon the use of good grammar by his students in writing and speaking. But it is not necessary or desirable to teach a unit in grammar as part of a vocational course — except one for printers, perhaps. It is far more effective if the teacher uses good grammar and corrects the grammatical errors of students in written and oral expressions in connection with learning an occupation. Every vocational instructor should insist upon correct spelling, legible writing, accurate arithmetic calculations. But vocational instructors have no business teaching units in spelling, penmanship, or arithmetic.

In the same way, every vocational teacher should encourage and insist upon his students being honest, courteous, co-operative, punctual, industrious. But it is foolish to attempt to teach these things by including them as a unit on citizenship in a vocational course. A far more effective way to develop such characteristics is by requiring the practice of these traits in connection with work and study while learning a chosen occupation.

These things are pointed out to illustrate that *whatever* a student pursuing a vocational course needs to make him more proficient in his chosen occupation can be taught most effectively in its relationships and applications to the work of his occupation, at the time it is needed. This is the distinctive characteristic of education which marks it as vocational education.

Even the matter of human relations, which is perhaps being presently magnified out of true proportions, can be developed most effectively as it operates in the group engaged in learning an occupation. There is the teacher-pupil relationship which coincides with employer-employee relationships on the job. There is the monitor-pupil relationship which coincides with foreman-worker relationships on the job. In any well-organized vocational program, provisions are made for social relationships through club and other extra-curricular activities, which coincide with similar community relationships. It would be foolish indeed to set up units of study in the hope or belief that these relationships can be taught out of a book. They are developed through practice and application; they are learned in relation to situations in which they are involved.

The desirable abilities of reasoning, problem solving, independent thinking, and making judgments are developed in a vocational course, as well as in the general education courses. In a vocational course, the student is constantly learning new things and making applications of them to useful and practical situations. He is constantly using his accumulated knowledge to solve new problems that arise as his job becomes increasingly technical in nature.

A good vocational teacher is alert to all the competencies his students need for success in their chosen occupations. He never overlooks an opportunity to stress the need for, and importance of, the development of desirable competencies and qualities in his pupils. But he keeps his eye on the ball — and the ball is the development of occupational proficiency. The good vocational teacher makes certain first of all that his pupils master the related information and develop the skills which insure competence in an occupation.

"Learning by Doing"

Specificity, selectivity, practicality,

and immediate applicability mark education as vocational. Subject matter becomes vocational when its objective is to increase occupational competency. Yet another distinguishing characteristic of vocational education is the teaching method — which concentrates attention on learning by doing.

It has long been known that learning takes place more readily and is more permanent when there is strong motivation for learning. It has been well established, also, that we learn by doing and that the more of the senses that are involved in learning the more permanent learning becomes. The U. S. Navy, during World War II, concluded that people generally learn about 10 per cent of what they hear, 20 per cent of what they see, 50 per cent of what they see and hear demonstrated, and 90 per cent of what they themselves actually apply to a useful and practical situation. The Navy reached this conclusion upon the basis of observation and experience in training hundreds of thousands of men for varied naval duties.

Vocational education capitalized upon these facts, verified by the experiences of the Navy, long before World War II. Properly planned and operated, vocational education has always emphasized learning by doing. Vocational courses involve hearing (telling by the instructor), seeing (requiring learners to read and study visual aids), and demonstration (the instructor showing and telling proper ways of doing the work of an occupation and applying related information to the doing of work), but concentration is always on student application (requiring the learner to perform the skills of an occupation correctly and to apply related information under close supervision of a competent instructor). The psychological factors favorable to learning are an outstanding characteristic of good vocational education.

Vocational education has often been misinterpreted because people are overly impressed by their observations of "learning by doing" activities in the vocational programs. An observer is likely to see only the physical manipulations involved. He sees the bricklayer placing mortar and brick to make a wall. He does not see the learning that underlies the skills. He cannot always appreciate the fact that the good bricklayer has learned to do mathematical calculations concerning the number of bricks needed, the amount of sand, lime, and cement needed; to read and understand blueprints; has acquired a knowledge of the chemistry of brickmaking and the setting of mortar; can lay out buildings in relation to boundary lines and directions; can co-operate with fellow workers and follow directions of the teacher (or foreman); and knows hundreds of other facts and bits of information necessary to be an intelligent and productive brickmason.

This partially accounts for the inclination of general educators to look upon vocational classes as appropriate for students who make poor grades in school. These people see only the manual skills and think of vocational education in the narrow sense of training individuals in the manipulative skills of an occupation.

Skills — Applied Knowledge

Of course, the skills of an occupation are developed in a vocational course. But skills are the vehicles through which technical knowledge is applied to the work of an occupation. Skills are the incentives and motivations for the mastery and use of technical information. Today's skilled craftsman must concentrate as much time upon the mastery and application of knowledge directly related to his occupation as upon the mastery of the skills.

It is this concept of vocational education which brought it into existence and upon which vocational education can continue to grow in effectiveness. Specificity, practicality, applicability, and immediate usefulness for the objective of a competent worker in a chosen occupation — these are the criteria for vocational education. This concept clearly differentiates between the functions of vocational and general education in the public schools of America. It creates a role for vocational education which marks its importance to our future secruity and welfare, for it assures that vocational education will equip our people for useful and satisfying lives as productive citizens in our democratic nation.

MICHIGAN CITY, IND., OBSERVES "HOWDY TEACHERS" DAY

Members of the Michigan City Chamber of Commerce and the women's division of the group entertained new area teachers at the fourth annual "Howdy Teachers" day. Pictured above during the coffee hour at the Purdue-Barker Center are (left to right) Miss Alice Luke, who will teach at the St. Paul Lutheran school; Sister Mary Leon, grade teacher at the Queen of All Saints School; Mrs. Andrew Sbrocco, who will teach at Park School; James Clements, general manager of the Chamber of Commerce; and Mrs. Cecil Martin, president of the women's division. An informal coffee hour, sightseeing tours of the interesting places of the community, and a luncheon at which each teacher was sponsored and introduced by a local citizen were features of the day. Mr. M. L. Knapp is superintendent of schools at Michigan City.

A MODERN REALISTIC PROCUREMENT

SOL LEVIN

Supervisor, Business Office, Baltimore, Md., schools

This article identifies some of the more pressing problems almost universally encountered in equipping new school building. It presents certain principles and tried practices that have been crystallized in one large-city school system in coping with these problems in a program which to date has involved more than a score of new structures.

Data Compilation and Organization

Unlike the complex processes involved in the determination of equipment needs for a new school building, it would seem that the actual physical compiling and organizing of the resulting data and their conversion into a form suitable for procurement purposes should reduce readily to a routine procedure. This would be so, were it not for the problems arising in the co-ordination of the activities of the many individuals involved, and in the proper scheduling and timing of numerous operations within the over-all procurement program.

To begin with, the lists of items and the quantities needed must come from many sources, such as, the music, home economics, cafeteria, physical education, building operations departments, etc., all of whom have worked for months to determine the educational tools and facilities needed by the school's staff. Because there are so many persons involved, this suggests an axiom for efficient performance of this important preliminary operation:

There should be one indivdual made responsible for accumulating all of the lists of needs for the school plant and for having them prepared in the proper form by a certain predetermined date.

This individual, whom we shall designate as the co-ordinator, should be someone in the Central Office staff, preferably someone on the assistant superintendent level; in a small district, the principal of the school. The co-ordinator could, to good advantage, assign the details of the task to a small committee of teachers, supervisors, or both.

Again, because of the number of people concerned, a corollary logically follows the above:

There should be standard forms used by all departments in itemizing their needs.

An ideal form for the purpose is one which clearly makes provision for all of the information needed, so that the person who will procure the equipment will be able to do so intelligently and with the least loss of motion. The data furnished must include the proper quantity of the exact item desired, as well as the exact destination within the building where the item is to be delivered. These forms should be designed by the procurement officer and should include several spaces for his exclusive use.

Required is a form for listing *by rooms* the items that are needed. A separate sheet of this type would be prepared in duplicate by the various department heads for each room in the building. To make certain that no room or space in the building is overlooked, the architect should provide the co-ordinator with a list of the room numbers taken from the architectural plans; the use allocated for each of these spaces should also be designated. An incidental suggestion might be made at this point which could very well help avoid later confusion. It is important that the final room number designations for the new building be definitely determined by this time, and that these numbers be used exclusively on the equipment lists. Later changes in these numbers could obviously seriously upset the efficiency of the subsequent distribution and inspection procedure. This schedule of room numbers can serve as a checkoff sheet as the various equipment lists are submitted, and also as a table of contents for the assembly of equipment lists after they have all been submitted. The items should be listed alphabetically and item numbers given. This suggests another corollary:

It is of the utmost importance in listing the equipment, that the terminology used in describing the items be, first of all, identical to that generally used by the industry supplying them; and second, that all of the departments ordering equipment for the school use the identical description in listing a particular item.

For example, if the art department orders a chair for the teacher, it should have the same designated, "chair, straight, adult, 17," as when the music department orders the identical item.

Furniture and Equipment Catalog

To help achieve standardization, wherever appropriate, the procurement staff can greatly facilitate its own job, as well as that of the instructional staff by having prepared a furniture and equipment catalog of standard items. This catalog should give the title, an identifying item

NEW ELEMENTARY STANDARD EQUIPMENT LIST

School.....

Room No...... **Purpose** Kindergarten

Description of Standard Items	*Catalog Item No.*	*Quantity*	*Est. Unit Price*	*Est. Total Cost*	*Contract or P.O. No.*	*Notes*
Bench, Piano, Upright	990185	1 ea.	12.00			
Bench, Work, Elementary, 25"	990255	1 ea.	70.00			
Board, Bulletin Portable, 3' x 3' overall dimensions	990285	1 ea.	18.00			
Bookshelving (3'–0" wide) on casters	990355	1 ea.	35.00			
Chair, Rocking	991147	1 ea.	5.00			
Chairs, Straight, Adult, 17"	991195	2 ea.	6.75			
Chairs, Unit, Tubular Steel & Solid Wood Construction						
10"	991265	4 ea.	6.00			
11"	991267	28 ea.	6.00			

Important in the data compilation and organization process in an equipment procurement program is the production of the standard equipment list (a part of which is reproduced).

EQUIPMENT PLAN

number, a condensed specification, and an estimated cost for each item most commonly purchased for the schools. This may seem to be a monumental task; but once completed, will save endless hours of duplication of effort, revision of requisition specifications, and verification of data of dubious accuracy. If such a catalog is available, then the description of each item on the room equipment list need only be very brief, because the item number identifies a definite catalog specification. Of course, if an item other than those in the catalog is desired, the requisitioner must give a full specification or a manufacturer's catalog number.

After the co-ordinator has received all of the room equipment lists, these are assembled numerically by room number; and a page number is then assigned to each list. The sheets are fastened together with a temporary fastening device into a booklet, which would include a table of contents and a durable hardboard cover. This booklet is prepared in duplicate; one copy is retained in the central office, and the other will ultimately be turned over to the principal of the new school.

This booklet of room equipment needs, as such, is of limited value to the procurement office. The next step is the tabulation of identical items in order to arrive at the quantities needed for each item. To use the previous example, the buyer is interested in knowing the quantity of adult chairs that are required for the entire building. School systems having tabulating equipment and which are equipping many new schools with a high degree of standardization, may find the use of such machines practical for the purpose. Usually, however, a proficient clerk with a little experience can do the job manually in short order.

Who should be responsible for the tabulation of quantities? This is not too important, but is a point to be established. It is usually resolved into a simple "Who has the most clerical help?" It would seem that this should logically be a responsibility of the co-ordinator rather than of the procurement officer. A suggested form for use in the tabulation process will be discussed later. It can also serve the dual role of a distribution list and of an inspection report form, when the equipment is delivered to the building. A separate distribution form, such as this, is prepared for each item to be purchased, even in the case of a single request. The only exception to this procedure would be where a large quantity of different, small items is required for a particular room, such as the small kitchen equipment for a cafeteria or hand tools for the shops. In this instance, all of the items are listed on a specially-prepared sheet which would be appropriately headed.

When the tabulation of all items has been completed, the distribution-inspection sheets are assembled alphabetically by items; page numbers are given and another booklet is prepared. This distribution and inspection book is also prepared in duplicate and is turned over to the procurement officer as his authority to proceed. Subsequently, as he places the orders, the contract or purchase order numbers are entered on the appropriate sheets, along with the names of contractors and contracted delivery dates.

Ultimately the duplicate copy of the distribution and inspection book along with the previously described room equipment lists will serve as guides for receiving and distributing equipment about the building as well as providing an inventory of original equipment.

Arranging for and Handling of Deliveries

In order to cope with the unpredictability of building construction completion dates and the unreliability of some equipment suppliers in meeting time-of-delivery obligations, certain districts having ample warehousing facilities have been utilizing advance purchasing for their furniture and equipment needs for one or more new buildings pending redelivery upon completion of the school plants. From the points of view of receiving and inspecting of deliveries, warehousing has the advantage in that trained receiving clerks are available for the process of assisting in unloading and checking deliveries and making accurate and prompt reports. On the other hand, items stored in the warehouse are usually left in their original containers, so that spot inspections are the rule, with the result that serious defects and damage may not be uncovered possibly for months when a strong case cannot be made for a claim. The added expense of warehousing and rehandling, as well as the factor of divided responsibility in the case of damages, are also disadvantages of storing equipment in advance of the building's completion.

The other procedure, that is, the direct

DEPARTMENT OF EDUCATION
BUSINESS OFFICE

DISTRIBUTION & INSPECTION SHEET

Furniture and Large Equipment

New School_____

Catalog Item No._____

Item_____

Specifications: (if other than standard)_____

BUSINESS OFFICE DATA

Contract No._____

Contract Item_____

P.A._____

Date_____

P.O._____

Vendor_____

Delivery_____

DISTRIBUTION

Room No.	Quantity	Inspection Report: Date Rec'd	Comments by Inspector (Note defects & discrepancies)	Date Insp.	By Whom
Total					

Page_____

A portion of the distribution and inspection sheet, which, together with the "shipment log" (that records the date of delivery, the quantity delivered, the lading bill number, name of shipping firm, etc.), can facilitate inspection and delivery reporting

delivery of equipment to the new school site, after the building has become available, whereas generally considered the more practical arrangement, poses other problems relating to receiving, identification, distribution, and inspections that can be quite disconcerting. If the advantages of direct delivery are to be fully realized, it is essential that the potential problems be anticipated and that suitable arrangements be made accordingly in the planning stages of the procurement program.

First of all, the equipment receiving facilities of the building must be analyzed. If the receiving area is a large one, readily accessible from the street, with a loading platform and ample space for the temporary storage of a van load of furniture, the situation can be treated like a miniature warehouse. The equipment specifications should advise the suppliers that platform delivery is possible, which would more than likely be reflected in their prices quoted for the materials. A full-time receiving clerk should then be assigned to the site for approximately a month. He should be equipped with ample handtrucks and be assisted by the custodial and/or an extra staff of laborers temporarily assigned for the purpose, to help, during deliveries, in the placing and stacking of the items either directly into the respective rooms in the building, or, in the case of major deliveries, temporarily in the receiving room for later distribution about the building.

The more usual situation is the relatively small or moderately-sized school building in which major receiving of equipment is a one-time affair and in which only limited spaces are available for establishing a makeshift receiving and distribution area. In this case it is of utmost importance to analyze the receiving situation. The most suitable entrance should be determined from the points of view of opening size, accessibility for truck unloading and cubage of spaces immediately adjacent to the entrance that can be used for temporary storage. It is fortunate if a gymnasium or large community room can be used for this purpose. (Particular care should be taken to protect the floors in such an arrangement.)

The Receiving Clerk

Particularly in the limited receiving operation of this modest building is it important to have an experienced receiving clerk supervise the receipt of major deliveries. A justifiable arrangement is to have such a person assigned to the site full time for approximately two weeks, during which interval he would, ordinarily, personally have supervised the receiving of the major deliveries and have instructed the custodian and principal of the building in the procedure for handling the balance of items due.

Particularly, in the case of the medium- and smaller-sized school buildings in which temporary storage space for bulk deliveries is almost nonexistent, serious consideration should be given in the procurement plan for requiring in the equipment contracts that the suppliers distribute and place the furniture and large equipment items about the building in designated locations. It is questionable whether the cost for this added service is of any significance over that if handled by school laborers; but in addition, there is the advantage of having full responsibility for damage in handling completely assumed by the vendor. This procedure, like all others, is not, however, without its inherent problems. For example, most large items of furniture and equipment are delivered by public carrier directly from the factory (which is usually out of the state), and the truck drivers, under ICC or other regulations, have been instructed to make loading-platform or sidewalk delivery only. Under certain conditions they will deliver into the building, but within a few feet of the entrance and then only on the same level. To add further to the problem it is not uncommon for a large trailer van to pull up, loaded with thousands of pounds of crates, with one man in the truck. He states that it is expected that someone at the site assist with the unloading. Under any circumstances, the practice of school personnel volunteering to assist the unloading of a supplier's truck should be definitely discouraged, for fixing liability in the case of injuries sustained under the extraneous circumstances is questionable and can result in involved legal proceedings.

Now, in the case where the equipment contract specifically required distribution and placement of the items within the building, it is important that the supplier be reminded that it is his responsibility to familiarize himself with the schedule of deliveries of his manufacturers and to make all arrangements for co-ordinating the unloading and distribution at the time that the trucks arrived at the site. This is particularly important where narrow passageways and entrances would be readily blocked by a "door" delivery pending later distribution. Under these conditions the receiving clerk should have instructions to prohibit unloading within the entrance, and if the truck driver insists on unloading at the sidewalk, the equipment contractor concerned should be immediately notified of the situation and of the fact that the school authorities assume no responsibility for the equipment until it is placed in specified locations within the building.

Inspections and Reporting

A detailed consideration of the topic of inspection of deliveries, with its many facets involving responsibilities in the cases of damage, interpretation of acceptability under the specifications, negotiation, and follow-up in the matter of discrepancies, are beyond the scope of this article's intent. A few pertinent principles and procedures, however, might be briefly suggested.

In general, since the procurement official is responsible for furnishing the materials for the school plant, it is his responsibility for the final inspection and acceptance of the items on behalf of the district. He cannot be expected to inspect personally every item. This inspection for uncovering obvious flaws in manufacture, damages, and improper count is ordinarily delegated to the principal of the school. The procurement official will usually spot-check each major delivery for compliance with the details of the specifications and occasionally check miscellaneous deliveries involving smaller sums of money.

The procurement official depends to a great degree for delivery information on the receiving reports furnished by the school principal or receiving clerk.

Whoever is responsible for receiving the equipment should be provided with necessary forms for reporting satisfactory deliveries as well as shortages, obvious defects, and damages. The distribution and inspection book described previously can be used for this purpose by removing the page for each particular item, as it is delivered, making the report on it and submitting it to the procurement department. Or, if it is desired to retain this booklet intact, a separate "receiving notice" or "notice of delivery" form can serve the same purpose. In some situations a copy of the appropriate purchase order applying to the particular item is attached to each page of the distribution and inspection book. There is a space provided on this copy of the order for the principal (or other receiver of the delivery) to sign and note damages, etc. This copy, serving as a receiving notice, is then forwarded to the procurement officer along with a copy of the vendor's delivery ticket that accompanies the delivery.

A problem that plagues the receiving clerk in coping with the large volume of items that deluge him is the matter of identification of the materials upon delivery. Despite specific instructions for proper labeling of shipments that may be included in the contract, a considerable percentage of deliveries arrive with inadequate means for immediate identification of the items. For example, in the case of a workbench, the shipment of legs may come from one source, the edge-grain top from another, the vises from still another, with none being the actual contractor. This sort of a situation is particularly baffling for an inexperienced receiver of merchandise.

In order to protect the interests of the district against losses and damages in deliveries and to help expedite the receiving operation, a practical device is the use of a "receiving log." The receiving clerk should be instructed to make his entries in the log while the truck is still at the site, if possible, or as soon thereafter as possible. He should also keep on file any copies of bills of lading or other delivery tickets that accompany the merchandise and identify each with an entry in the log.

What Shall We Do for the Slow Learner?

Early identification and proper counseling are important steps in Philadelphia's slow learner program.

EMMA L. BOLZAU and ELIZABETH L. KELTZ

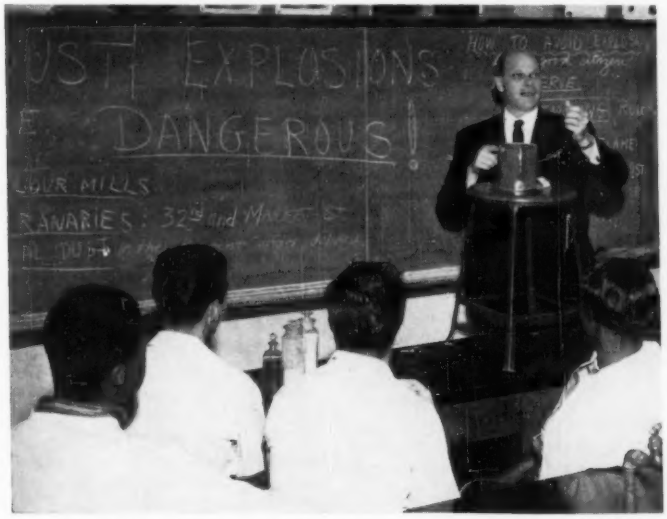
Twenty per cent of the school population are responsible for most of the headaches of teachers in secondary schools. Who are these 20 per cent, and why do they present many problems to high school teachers?

Studies have shown that about 20 per cent of the boys and girls in the schools of the United States have intelligence scores ranging between 70 and 90. These pupils are "slow learners." Their mental ability is not low enough to class them among the seriously mentally retarded. At the same time their ability is too limited to cope with the established high school curriculums.

Examples of the 20 Per Cent

Twenty-five years ago these pupils would never have reached senior high school. Today they must be provided for. Here are three typical patterns taken from life.

Jerry is a 15-year-old freshman in one of our large senior high schools, of average physique, wholesome looking, clean, healthy and quiet-mannered. He wants an immediate job although he does not have to have the cash. He dislikes school and is marking time until he can quit. Although his father and two brothers went through eighth grade only, they have good paying jobs at semi-skilled factory work. They didn't need further education so Jerry doesn't feel the need for further schooling. No one at home reads anything but comics or the most popular of the popular magazines on a low cultural level. His I.Q. is about 85, 15 points below normal. His record up to date is one of many scholastic failures. He refuses to do his work, sits quietly in class, but he won't make the effort to do any of the assigned jobs.



In Philadelphia, the slow learner project is directed at both boys and girls and both white and colored students in an effort to provide individually-fitted education for all its children.

Dr. Bolzau is curriculum assistant in the Philadelphia, Pa., public schools, while Mrs. Keltz is director of the Department of English at the Simon Gratz high school in Philadelphia.

Beside him sits Susie, a friendly girl with her mind on the perennial problem of adolescent girls — boys. Her one wish is to get married as soon as possible and "quit school." She has no desire to prepare for a job, as she expects to find a young man to support her. As she is unusually pretty, she has many "boy friends" and is always trying to attract attention in class. Her test scores show her I.Q. is 80.

Next comes Jack, a husky, fine-looking Negro, who has recently arrived from a rural town in the south where he has had inadequate preparation either for secondary school or city living. He is in a state of continual confusion, facing many new problems both at home and in school. He may become aggressive or withdrawn within the next few months. The intelligence tests that the school gave him indicate he is of very low ability, but there are few other school records for him. In his confused state of mind, it is difficult to decide where his abilities do lie.

Youth such as these make up 15 to 20 per cent of our total senior high and vocational-technical school population in Philadelphia.

The senior high schools were originally set up to provide higher education beyond the grammar school, but many pupils could not make the grade and many could not afford to stay in school. Our senior high schools still continue to provide for the needs of the 80 per cent of the school population — the average and gifted pupils. In fact, secondary schools offer many more opportunities in music, art, science, literature, and foreign languages, as well as training for leadership, than ever before. The content has been enriched, new methods adopted, and new materials written. According to research studies, the resulting product equals or surpasses that of 30 years ago. The very fact that present state laws require youth to stay in school until they are 16 proves that legislators, union members, employers, parents, and educators all realize the value of longer educational exposure.

The unsolved problems lie in providing the best education possible for the Jerrys, the Susies, and the Jacks. Some of these boys and girls want to get immediate jobs; some dislike school; some want to be grown up without the necessary training to become grown up. As a result, too many fail their high school subjects, waste their time, and refuse to take advantage of all the opportunities for a better way of life — at home, at work, and at play. Consequently, they never do grow as much as they could or should during these formative years.

A Committee Appointed

Through the years the problem of the slow learner in the senior high schools has gradually become more and more acute. In Philadelphia, as in other school systems, secondary teachers have been grappling with the knotty problems, developing programs in individual schools for many years. In 1954 the curriculum office of the Philadelphia Public Schools gave the problems of the slow learners in the secondary schools top priority. It appointed a planning committee on the slow learner to help decide what means could be provided for a city-wide exchange of ideas among teachers working daily with these classes. How could suitable materials be collected and evaluated? How could recognition be given and wider use made of effective work already in progress?

The planning committee, consisting of members of the curriculum office, principals of senior and vocational-technical schools, department heads, and teachers made long-range plans, discussing philosophies, policies, and steps to be taken. Three of our teachers were appointed as a fellowship team for one year by the Fund for the Advancement of Education to carry on the project, to visit Philadelphia schools, and to travel over the United States looking for workable programs.

A Two-Day Seminar

In order to utilize the rich experiences and ideas that teachers and administrators have had in the individual school programs, a two-day seminar was held for representatives from 17 schools. Never has a more vitally interested group of people gathered in Philadelphia to consider the education of the slow learners. Except for three one-hour general sessions, the time during the two days was devoted to group meetings. With such keen interest and common understandings of the problem, all the groups were "clicking" within an hour. The group thinking centered around such questions as:

What is the slow learner like?

What psychological approach should be used in working with him?

What kind of teacher should he have and what teaching techniques are effective?

What should we teach the slow learner?

What materials and equipment are needed?

How should schools be organized to meet his needs?

How can we provide the best teaching staff for the slow learner groups?

In order not to get bogged down on the definition of a slow learner and get no further, the seminar agreed to accept the definition as any pupil slightly below the average for whom the multiple curriculum offered in the high school is not suitable and who is not taken care of in the Philadelphia Special Education Program. Since the emphasis was placed upon the positive approach, griping was out.

The question, "If there were no limitations, what experiments in the teaching of slow learners might be tried in the Philadelphia senior high and vocational-technical schools?" stimulated great interest and was productive of concrete suggestions.

Pinpointing Needs

A summary of the group thinking, subsequently prepared, highlighted a number of needs:

Small classes of 25 pupils.

Sympathetic teachers with faith both in the slow pupil and the slow learner program.

Courses with immediate goals, short units, geared to establish acceptable behavior patterns and to develop the abilities and skills to the greatest extent possible within one's limitations.

Exploratory shop work.

Job programs with school-work programs to take care of as many of the slow as need this vocational guidance and supervision.

In-service training on school time for teachers not trained to handle these classes.

Adequate reading materials on differentiated levels.

Further studies including re-evaluation of the marking and diploma granting system.

A pilot school or a demonstration school and a job-training school to serve for terminal education.

A collaborating teacher assigned to the curriculum office to co-ordinate and assist with the work of the slow learner in the senior high and vocational-technical schools.

Just as the White House Conference gave no startling new ideas, but tended to strengthen and emphasize the thinking that leading educators and laymen had developed through the years, so this seminar highlighted the thinking of our teachers on the education of the slow learner. This thinking will strengthen the hands of the planning committee on the slow learner in its presentation of recommendations to the board of superintendents for the slow learner program in the Philadelphia senior high schools.

This is only the beginning of the program. The seminar representatives returned to their schools with a report on the seminar. The faculty in each of the 18 schools agreed to try out a new project or give renewed emphasis to one or two already under way. During the spring term of 1956, teachers in each school kept records of their objectives, their materials, and methods, their successes and failures in the project on the slow learner which they are conducting in their classes.

These experiments range from developmental reading programs, occupational studies, experimentation with special methods and materials in nine different subject areas to analytical studies of education records, dropouts, control experiments, school-work programs, and new plans for guidance.

The reports of the experiments were summarized by the Ford Fellows and will be used by the co-ordinator who has been released from teaching for one year.

In Philadelphia the need rose among the people, the young people of our city. The teachers doing the daily ground work contributed their share of leadership based on the realities they had to meet; the administration began to pull all the strands together; the Fund for the Advancement of Education provided extra help in research. Quietly, without fanfare, our schools are gradually changing, and are trying to solve the education problems as they arise.

The School Board Member Today

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The first of a two-part article that considers board members' social-economic backgrounds and attitudes toward common educational issues.

I

The American school board member has been the subject of several notable studies by educators. Research during the first half of the twentieth century focused attention upon the school board member's qualifications for his important task of shaping policy for the local school district. Earlier researchers also found that school board members tended to come from the same or similar socio-economic backgrounds.[1] Some concluded that, as a result of this apparent socio-economic homogeneity, board members tended to share the same values along the lines of some "common denominator."

Furthermore, the common business and professional backgrounds of school board members caused some critics to assert that board members held "conservative points of view." It was implied that this conservatism resulted in board members being, at least, paternalistic and, at worst, actively discouraging educational progress.

A Current Study

In view of the attitudes indicated by earlier research concerning board members' backgrounds, the writer felt it might be of interest to perform a current study of school board members. The study was performed with two objectives in mind: (1) to determine the socio-economic backgrounds of public school board members; and (2) to determine the attitudes held by board members toward certain current issues in education. In addition, the study attempted to discover whether or not there were certain *common* attitudes shared by board members of the same or similar backgrounds. Finally, it was sought to ascertain the significant changes, if any, which had occurred in the types of persons selected to school board membership since the 1920's and 1930's.

A questionnaire instrument was devised, with the help of the Illinois Association of School Boards, for the purpose of gathering the data. The questionnaire was mailed to a random sampling of 683 board members throughout the state of Illinois; returns totaling 65 per cent were received. Returned questionnaires were edited for the purpose of categorizing certain "free-response" answers and to reject any answers which may have had qualifying remarks appended to them. The data were then tabulated by a commercial tabulating concern.

Backgrounds of Board Members

The median board member was found to have been a married, male member of the white race, 49.13 years of age. The age span from 31–61 years and over constituted approximately 92 per cent of the returns; the age span from 45–61 years and over comprised almost 52 per cent of the board members reporting. Males dominated the school boards polled with 93 per cent of the membership. Also, 94 per cent were married and 77 per cent had children enrolled in public schools. Members from the white race amounted to slightly more than 99 per cent of the total who replied to the questionnaire.

Board members had served their communities, on the average, slightly more than six years. However, 35 per cent had served nine years or more. A partial explanation for the large group which had served more than nine years may have lain in the fact that several board members had served on the board for a school district which had been annexed or consolidated with a neighboring district. That was regarded as being a reflection of the fact that Illinois has seen a decline in the number of school districts, since 1947, from approximately 12,000 to approximately 2400 districts. One respondent volunteered the information that he had served a total of 52 years, either as a board member or as secretary to the board.

The median board member devoted almost nine hours per month to board duties. This latter figure was *almost double* the amount of time devoted to board duties by members during the 1920's.

Educational Attainment and Occupations

The median board member had completed more than 12 years of schooling; less than 8 per cent had failed to go beyond grades seven-eight and more than 50 per cent had attended college or graduate school. Current data, when compared with a study reported in 1936 by Hortin,[2] indicated that more than twice as many Illinois board members in 1956 had attended college than did board members in 1936. The Counts report indicated that only 68 per cent of the board members polled in 1920 had attended high school or college; the current study revealed that almost 92 per cent had had the benefits of secondary or higher education.

Occupations of respondents were categorized generally along the lines proposed by Warner.[3] Respondents were not queried as to the dollar value of their business holdings, as required by the Warner system; therefore, all who reported ownership of a business were placed in the same category.

It was evident that Illinois school board members tended to follow the occupations of business ownership, business management, and the professions. Businessmen, including farm owners, and professionals comprised almost 66 per cent of the respondents. Farm owners comprised almost 39 per cent of the total returns. Thus, businessmen and professionals represented almost 27 per cent of the membership of Illinois school boards. It was noted that board members from the ranks of agriculture had declined appreciably during the past 20 years while those from business and professional pursuits had increased.

Economic Backgrounds

The lack of objectivity of the questions pertaining to board members' homes and neighborhoods was recognized. However, these data were necessary to the determination of the social classes of the respondents. The median board member indicated his house as having a market value of approximately $16,000. He described

[1]Cf. for example, George S. Counts, "The Social Composition of Boards of Education: A Study in the Social Control of Public Education," *Supplementary Educational Monographs* (Chicago: University of Chicago Press, July, 1927), 83 pp.

[2]James F. Hortin, "The Social Composition of Secondary School Boards of Illinois" (Unpublished Master's Thesis, The University of Colorado, Boulder, 1936), 67 pp.

[3]W. Lloyd Warner, Marica Meeker, and Kenneth Eells, *Social Class in America* (New York: American Book Company, 1949).

the neighborhood in which he lived as being "above average."

Almost 58 per cent of the respondents derived the major portion of their incomes from profits, 35 per cent from salaries, and slightly less than 8 per cent from wages. In this connection it was noted that approximately 6 per cent were members of labor organizations. The latter data indicated that labor had not made appreciable gains in school board membership since the 1930's at which time Hortin reported 4 per cent of Illinois secondary school board members as belonging to the ranks of labor.[4]

Board members reported membership in rather diverse types of "business and professional" organizations. In general, however, it was found that 82 per cent of the respondents belonged to at least one organization which they themselves classified as "business or professional." Some respondents reported membership in as many as nine organizations; 17 per cent "none." Very few, less than 14 per cent, belonged to education organizations other than the state school board association.

Almost two thirds of the respondents reported that they began to feel effective as a board member after approximately two years of service on the board. Twenty-five per cent felt effective during their first year of service, and 22 per cent during their third year of service. Approximately 2½ per cent reported themselves as having "never felt effective" as board members.

Summary

The median Illinois public school board member was found to have been a married male member of the white race who was 49 years of age, had one to two children in public school, and who had himself attended school for approximately 12 years. He had served on a school board for eight or nine years, devoted eight to nine hours per month to board business, lived in a home valued at approximately $16,000 located in a neighborhood which he himself classified as being "above average." He derived his income from profits or fees, was engaged in the occupation of business, the professions, or farming, and belonged to from one to three business or professional organizations. He began to feel effective as a board member during his second year on the board.

Opinions and Attitudes

Each board member brings to his tasks certain attitudes and opinions concerning current issues in education. The final chapter of this article, which will appear in the December JOURNAL, will reveal some rather interesting data concerning board members' attitudes toward issues such as: the need for federal aid; teacher tenure; merit pay for teachers; lay participation in curricular planning; etc.

[4]Hortin, *op. cit.*

Line-Staff Organization in the Interdisciplinary Approach

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In the interdisciplinary approach to the improvement of educational leadership, school administration is concerned increasingly with the adaptation of successful techniques and theory from administration in other fields to the solution of its own problems in public education.

One adaptation relates to the role of the research specialist in the administrative organization. Applied to the public school, the question is: What will happen in a line-staff organization when educational practice places the same importance on research findings, and accords the same status to the research specialist, as does industry?

The researcher is a staff officer in industry but, so often is he a consultant on the implementation of his findings and recommendations, that he functions as a line officer in terms of authority. Because it enters his province to make decisions, personnel become responsible to him. Indeed, many line officers in industry came into administrative positions through research ability, and the ability to plan, organize, and produce on the basis of research findings.

In education, however, it is possible that the staff research specialist could reach, gradually, a point where he has authority to make decisions with no responsibility for outcomes. This would not be best practice, for the school administrator is responsible to the school board.

On the other hand, *if* the researcher *does* have responsibility (for example, making the decision as to choice of a site for a new school), he is likely to become cautious; this wariness would hamstring his imagination and vision, modify his approach, and reduce effectiveness of a research program.

Research Specialist's Role

In smaller districts, the administrator will probably do the research, or else there will be little, if any; in the larger city, or intermediate, district, it will be the function of the research specialist. What *is* the *staff* function of the research specialist in education? It is up to him to feed the ideas, to feed the needs, to the administrator; and, it is up to the administrator to decide whether he can use the ideas, satisfy the needs, providing: he can appreciate, absorb, and digest what research has to tell — if he cannot listen, see, and appraise, either the research is in vain, or he begins to permit the specialist to make decisions.

The Solution

Since the emphasis that industry places on research is closely related to improvement, comparable emphasis might do much for education. But educational leadership should keep findings at the research level, and recommendations at the liaison level between research and administration, with administrators taking it from there; administrators should have the training and bent that will enable them to interpret on the basis of research, justify on the basis of research, enlist public support (through the community school board) on the basis of research, and act on the basis of research.

In the application of what is good and appropriate in industrial administration to its educational counterpart, this would indicate the following implications for educational administration and the in-service education or preparation of educational administrators:

1. Preparation should include training in research, particularly in the administrative area. This, of course, education does.

2. Preparation should include training, perhaps even internship, in the interpretation of the findings of educational research, decision making on the basis of these findings (even if it is only vicarious), the implementation of these, and the application of this implementation to various real, specific public school situations in a variety of community settings and social climates.

3. The line officer should be research oriented, as well as logic and experience oriented. Otherwise, he will have to choose between ignoring research entirely, and watching a staff officer enter the flow of authority.

The County Unit in West Virginia Schools

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The trend toward large units of school control is not a new one. In West Virginia as early as 1916 recommendations were made to the legislature to consider a county unit school system in the state of West Virginia. It was not until after the state adopted a tax limitation amendment to the constitution and the subsequent reduction in the available income for schools on a local basis that the county unit law was passed. This was in 1933. Other states having county units in part or whole are Alabama, Georgia, Kentucky, Louisiana, Maryland, New Mexico, North Carolina, Tennessee, Utah, and Virginia. Cooper and Fitzwater stated:

> In the twelve county-unit states there are 904 County Units of school administration and 441 Independent Districts. The number of independent districts range from none in West Virginia and Florida to 136 in Kentucky. All county units have the common characteristic of being comprised of a large geographic area which is made up of a number of neighborhoods and communities. In contrast, independent districts are composed of a single city or village community. Except for the few large city school systems, county units of administration in these states have much larger pupil population than the independent districts.[1]

The change was not accepted favorably in all sections of the state. Greatest opposition was found in the independent districts especially in the larger urban areas.

The opposition seemed to grow out of the following fears:

1. The local districts would lose control of their schools.
2. The progressive independent schools would be "leveled off" to supply the deficiencies existing in the rural areas and that the state as a whole would not be benefited by the change.
3. The salaries of the city school teachers would be lowered due to the curtailed income needed to raise the rural school educational levels.

Evaluation of the County Unit

Since the adoption of the county unit there have been some attempts at its evaluation. It has been claimed that the county unit plan has resulted in enormous improvements of the rural schools. Previous to the introduction of this plan the various districts offered different levels of educational opportunity but under the new plan the opportunities are more uniform throughout the state. The county unit has brought to the school system a most businesslike arrangement in the administration of school finance. It has assured the schools of a minimum nine-months term whereas the district system operated without any set school term, depending on the amount of finances available.

It was the purpose of this study to check back over the record to see to what degree these claims have materialized. Since West Virginia was the first state to completely organize on a county basis it would seem that such a study would have value to the general reading public interested in the question of county unit versus district systems of school organization.

Table I covers the period from 1925–26 to 1951–52 and should be read as follows: There were 7049 teachers in 1925–26 with one year or less preparation. This was reduced to 2658 in 1933–34 and to 1638 in 1943–44. This was further reduced to 1211 in 1951–52. This made a reduction such that there were only 36.1 per cent as many with such preparation in 1933–34 as in 1925–26. This number was further reduced so that in 1943–44 there were 61.6 per cent as many as in 1933–34 and by 1951–52 there were only 45.6 per cent as many as in 1933–34.

Summary of Catagories

1. Space will not permit a detailed recapitulation of each category in the tables but in general one can state that there has been improvement in all categories except capital outlay. Those close to the problem are aware that the economic conditions which caused the breakdown of the district system and the change to county unit type of school organization affected the building program. Right or wrong it seemed best to continue the instructional activities at a high level even though the

TABLE I. Effects of the County Unit in West Virginia

Classification	*1925–26*	*1933–34*	*1943–44*	*1951–52*	*Per Cent 1933–34 was of 1925–26*	*Per Cent 1943–44 was of 1933–34*	*Per Cent 1951–52 was of 1933–34*
			1. *Staff Personnel Data*				
One year or less of preparation	7,049	2,658	1,638	1,211	36.1	61.6	45.6
Four or more years' preparation	1,849	5,510	8,186	11,322	297.7	148.6	205.5
One year or less of experience	7,256	5,268	3,102	3,480	72.6	58.9	66.1
Five or more years of experience	6,629	10,939	12,197	12,790	165.0	111.5	116.9
Total number of teachers	13,885	15,340	15,512	16,270	116.7	101.1	100.4
Number days taught	170.3	154.5	173.3	173.0	90.7	112.1	112.0
			2. *Pupil Personnel Data*				
Average daily attendance	308,405	289,148	360,270	395,693	93.8	124.6	136.8
Total number of pupils	384,722	440,185	409,081	440,567	113.1	92.9	100.1
Teacher-pupil ratio	27.70	27.22	26.37	27.1	98.2	96.9	99.6
Enumeration of pupils	479,182	548,049	509,987	561,814	114.4	93.1	102.6
			3. *Financial Aspects of the Problem**				
Value of the school property	62,183	67,431	93,755	178,627	108.4	137.6	264.9
Operational costs	1,848	1,629	2,933	5,393	88.1	180.1	330.9
Instructional costs	15,305	14,125	23,632	49,434	92.3	167.3	350.0
Capital outlay	3,061	4,520	1,311	6,189	147.7	29.0	134.7
Total expenditures	56,183	27,230	29,581	76,449	48.7	108.6	280.7

*To nearest $1,000.

[1] Shirley Cooper and Charles O. Fitzwater, *County School Administration* (New York: Harper and Brothers), p. 198.

building program was allowed to suffer.

2. There seemed a slowdown percentagewise in general following the county unit organization. This was in the midst of the economic crisis which brought about the reorganization and no one knows how much greater it would have been if the old district system continued. Many schools were already offering less than nine months' school and salaries were in arrears and being cut. Salaries have been paid on time and all schools have operated on a nine months' basis since the county unit has been in effect.

3. By 1951–52 there was noticeable improvement in all categories for which data are on record. Among the more significant evidences favoring the county unit type of organization by 1951–52 was the increase in preparation and experience of the teachers; the reduction in the teacher-pupil ratio: and the improvement in average attendance of pupils even though the number of pupils remained approximately the same.

4. The most encouraging factor was the increase in the number of days school was in session. In 1933–34 it had dropped to 90.7 per cent of 1925–26 but by 1943–44 it had risen to 112.1 per cent of 1933–34. This was reflected in higher average daily attendance and a reduction in teacher-pupil ratio. The latter may have been caused by the lowering pupil enumeration and smaller number of pupils enrolled.

5. In the material aspects total expenditures in 1933–34 was only 48.7 per cent of 1925–26 but in 1943–44 it was 108.6 per cent of 1933–34. In 1951–52 it was 280.7 per cent. Data show there is still need for improvement in the building situation. Boards of education are still spending the bulk of funds available on instruction and operation. These are factors most closely correlated with student needs. How much the war conditions affected these data is not known. It must have been a material factor in reducing the improvements brought about by the county unit organization.

6. There is some evidence of economy, since the total school costs dropped while instructional and operational costs continued to rise. This probably was caused by the drop in building construction. The value of the school property arose during the periods studied.

Cost – Student Body Ratio

The problem was then attacked from a different angle. It seemed to be a reasonable thesis that a good evidence of success of a school unit would be the ratio of total expenditures bear to the total pupil body served. Table II attempts such answer and in general shows that the ratio of school costs to pupils served decreased from 1925–26 to 1933–34 and following that period regained its improvement trend. This reached the peak of $173.50 in 1951–52 as compared with $61.90 in 1933–34 and $146 in 1925–26.

Another indication of the same type would be the per cent of the assessed valuations of a unit for school support that was used for educational purposes. Table III attempts to answer this question and shows in a like manner the value of the larger unit of school support. In 1925–26 West Virginia expended 0.34 per cent of its assessed valuation for school purposes. The amount was 1.52 per cent in 1933. There was a slight drop in 1943 reflecting economic conditions but arose abruptly in 1951 to 2.75 per cent.

TABLE II. Per Pupil Cost

Year	Total Expenditure in $1,000	Number Pupils	Per Pupil Ratio Multiplied By $1,000
1925–26	$56,183	384,722	$146.00
1933–34	27,230	440,185	61.90
1943–44	29,581	409,081	72.30
1951–52	76,449	440,567	173.50

TABLE III. Per Cent of Assessed Valuation Used for Education to Nearest $1,000

Year	Assessed Valuation*	Total Expenditures for Schools	Per Cent Spent for Schools
1925	$1,671,276	$56,183	0.34
1933	1,785,165	27,230	1.52
1943	2,058,205	29,581	1.44
1951	2,778,171	76,449	2.75

*Taken from Legislative Manuals — sometimes called The Blue Book.

As a final indication of the success of county unit one should study the increases in pupil services as indicated by factors other then instruction and housing. Such factors as transportation, days taught, length of school term, cost of meals served, and cost of free textbooks should be studied.

TABLE V. Type County Study – Personnel Aspects

Classification	1925–26	1933–34	1943–44	1951–52	Per Cent 1933–34 was of 1925–26	Per Cent 1943–44 was of 1933–34	Per Cent 1951–52 was of 1933–34
1. One Year or Less Preparation							
West Central Counties	755	1,204	97	29	159.4	8.0	2.4
Southern Counties	779	1,450	127	56	186.1	8.7	3.7
Northern Counties	1,082	538	16	2	49.7	2.7	0.4
North Eastern Counties	564	604	32	7	107.0	5.2	1.1
Industrial Counties	1,282	1,212	74	21	94.5	6.1	1.7
Mining Counties	931	1,550	144	58	166.4	9.2	3.8
Rural Counties	271	526	47	13	194.0	8.9	2.4
2. Number Days School Taught							
West Central Counties	163	176	173	173	107.9	98.2	98.2
Southern Counties	163	177	174	173	108.6	98.3	97.7
Northern Counties	168	176	174	174	104.7	98.8	98.3
North Eastern Counties	164	177	175	173	107.9	98.8	97.7
Industrial Counties	165	177	173	174	107.2	97.7	98.3
Mining Counties	160	177	173	173	110.6	97.7	97.7
Rural Counties	162	175	173	172	108.0	98.7	98.2
3. Average Daily Attendance							
West Central Counties	8274.1	10667.6	10674.8	12171.9	128.9	100.0	114.1
Southern Counties	8431.9	11386.7	12324.6	14274.6	135.0	108.2	125.3
Northern Counties	7678.1	10043.1	8539.5	8601.1	130.8	85.0	85.6
North Eastern Counties	3285.5	3853.9	3627.9	3953.9	117.3	94.1	102.6
Industrial Counties	12552.1	15920.9	15160.1	16482.0	126.8	95.2	103.4
Mining Counties	7771.4	11300.9	11928.7	13950.3	145.3	106.0	123.4
Rural Counties	3257.1	3986.0	3517.3	4032.9	122.2	88.2	101.1
4. Teacher Pupil Ratio							
West Central Counties	27.9	28.1	24.1	24.5	100.7	85.7	87.2
Southern Counties	25.5	30.1	24.1	30.2	106.2	80.0	100.3
Northern Counties	29.1	31.9	25.2	25.9	109.6	79.0	81.1
North Eastern Counties	25.2	26.3	24.8	25.5	104.3	94.2	96.9
Industrial Counties	28.2	29.2	26.6	25.9	103.5	91.0	88.3
Mining Counties	26.5	30.7	27.7	29.9	115.8	90.2	97.3
Rural Counties	26.3	26.1	21.9	24.3	99.2	84.2	93.1
5. Enumeration							
West Central Counties	82,031	116,575	105,600	153,594	142.1	90.5	131.7
Southern Counties	73,578	121,599	100,663	145,489	165.2	82.7	119.6
Northern Counties	69,269	108,058	81,530	88,596	155.9	75.4	81.9
North Eastern Counties	37,475	44,668	35,851	42,010	119.1	80.2	94.0
Industrial Counties	108,851	170,862	145,323	1[illegible],899	157.1	85.0	113.4
Mining Counties	77,473	118,863	101,037	143,115	153.4	85.0	120.4
Rural Counties	40,445	46,504	37,801	45,034	114.9	81.2	96.8

Table IV should be read as was Table I. The following facts made even more significant the savings evidenced in total costs of education in the state. There was no transportation in 1915 and data on free meals were not found until 1943 although it started a bit earlier than that. Percentage-wise the increase in these services was marked after the state organized schools on the county basis. It is clear to those who are familiar with the facts that these services are the direct results of the wider view of schools resulting from the new organization of the state. Such organization brought larger state participation in school costs and thus made possible additional services to the pupils.

TABLE IV. Cost of Pupil Services*

Classification	*1925–26*	*1933–34*	*1943–44*	*1951–52*	*Per Cent 1933–34 was of 1925–26*	*Per Cent 1943–44 was of 1933–34*	*Per Cent 1951–52 was of 1933–34*
Transportation	217	278	1,815	5,585	128.1	652.8	2008.8
Cost of meals served	***	***	1,000	1,405	***	***	***
Cost of textbooks (free)	170.0	58.0	177.0	85.0	32.3	287.9	141.7

*To nearest $1,000.
***Increase from 1943–44 to 1951–52 was 140.5. There were no earlier data indicating meals served.

Tables I to IV in general seem to indicate that as far as the state in general was concerned the larger unit of support had been an educational blessing but there still remained the question: Has this been a total gain for all communities or was it a gain for the state as a whole at the expense of the larger and more progressive communities. Seven counties in each of the geographical areas and in each of the major industrial type counties were selected. From the data in these counties a similar study was then made with the results shown in Tables V and VI. In general these tables are read in the same manner as those covering the state as a whole although all items in the earlier tables were not studied in the type counties. A study of these tables on type counties seem to warrant the following observations.

TABLE VI. Type County Study — Material Aspects — To Nearest $1,000

Classification	*1925–26*	*1933–34*	*1943–44*	*1951–52*	*Per Cent 1933–34 was of 1925–26*	*Per Cent 1943–44 was of 1933–34*	*Per Cent 1951–52 was of 1933–34*
1. Value School Property							
West Central Counties	14,711	16,664	26,493	39,732	113.2	158.9	237.7
Southern Counties	11,656	13,198	15,529	35,261	113.2	117.6	267.1
Northern Counties	14,832	15,034	22,430	41,328	101.3	149.2	274.7
North Eastern Counties	2,945	3,612	5,512	10,685	122.6	152.6	296.0
Industrial Counties	26,498	27,865	42,469	65,011	105.1	152.0	233.3
Mining Counties	9,731	12,254	15,733	37,099	125.9	128.3	302.0
Rural Counties	2,595	2,345	3,744	9,992	90.3	159.2	426.2
2. Operational Costs							
West Central Counties	514	346	694	1,211	67.3	200.5	350.0
Southern Counties	427	274	584	1,142	64.1	213.1	416.7
Northern Counties	608	401	632	1,159	65.9	157.6	289.0
North Eastern Counties	144	111	170	354	77.0	153.1	318.0
Industrial Counties	927	601	1,080	1,945	64.8	179.3	323.6
Mining Counties	451	280	465	1,089	62.0	166.0	388.9
Rural Counties	153	99	165	306	65.3	166.0	308.9
3. Instructional Costs							
West Central Counties	3,069	2,909	5,437	11,328	94.7	186.0	389.0
Southern Counties	2,654	2,697	5,062	10,682	100.8	188.0	396.0
Northern Counties	3,196	2,892	4,204	8,573	90.8	148.4	296.4
North Eastern Counties	1,065	1,102	1,644	3,591	103.4	148.2	325.8
Industrial Counties	4,770	4,582	7,584	15,761	96.0	165.5	321.8
Mining Counties	2,644	2,696	5,003	10,745	101.9	185.5	398.5
Rural Counties	1,125	1,049	1,716	3,406	93.2	163.5	324.6
4. Capital Outlay							
West Central Counties	604	96	223	1,792	17.5	231.2	1866.6
Southern Counties	1,023	72	320	1,655	7.0	444.4	2398.6
Northern Counties	1,167	66	105	554	5.6	159.0	839.3
North Eastern Counties	176	19	51	323	10.7	266.3	1700.0
Industrial Counties	1,435	107	226	1,777	7.4	211.2	1660.7
Mining Counties	794	103	344	1,367	12.8	344.6	1327.1
Rural Counties	183	75	93	556	40.9	124.0	741.3
5. Total Expenditures							
West Central Counties	4,896	3,743	4,189	16,024	72.7	111.9	433.4
Southern Counties	4,467	3,528	7,551	17,826	78.9	214.0	505.2
Northern Counties	5,619	3,779	6,115	13,137	67.2	161.8	347.6
North Eastern Counties	1,658	1,375	2,378	6,636	82.9	172.9	482.6
Industrial Counties	8,534	5,905	7,119	24,224	69.1	120.5	410.2
Mining Counties	4,028	3,587	7,746	19,236	89.0	215.9	536.2
Rural Counties	1,563	1,393	2,626	5,701	89.1	188.5	409.2

Several Conclusions

1. The increase of poorly prepared teachers following the county unit which was seen for the state as a whole was seen for each type of county studied. This was corrected in later years.

2. There was a slight drop in the number days school was in session which may have been caused by the extensive consolidation and transportation. Thus bad roads might have made it impossible to hold schools in some localities which would not needed to have closed were schools operated locally.

3. All types of counties showed a tendency to reduce the size of classes as shown by the decrease in teacher-pupil ratio. The enumeration decrease may be a reflection of the decreasing family size and have no direct relation to type of school organization.

4. As was to be expected there were variations in degree among the type counties in both personnel and material aspects of the school, but the same general trends were noted in all types of counties studied. The rising trend was rather sharp in both operational and instructional costs.

5. School building construction had almost reached a standstill prior to the county unit as is shown by these figures. In 1933–34 school construction was only 5.6 per cent of 1925–26 in some types of counties and was only 40.9 per cent in the best group under study. An abrupt rise was noticed following 1933–34 when in 1943–44 the rural group increased 124.0 per cent and the mining counties 344.6 per cent of 1933–34.

6. The same trend was reflected in total expenditures for educational purposes. The range in types of counties was 67.2 to 89.1 per cent of 1925–26 in 1933–34 but had risen to a range of 111.9 to 215.9 per cent of 1933–34 in 1943–44.

7. Hence there seems no basis for the belief that the gain in the state as a whole was at the best a "leveling-off" process. It seems clear that with the advent of the county unit something did change educational conditions in West Virginia and that these changes were reflected in types of counties as well as in the state generally. One would seem justified in concluding that the county unit was the basic factor in this improvement or at least was closely correlated to the basic factor.

RECENT JUDICIAL OPINION XL—

School Boards and Teacher Dismissal Hearings

STEPHEN F. ROACH

Editor, **Eastern School Law Review**
Jersey City, N. J.

The times are such that a far greater portion of the efforts of the average school board is devoted to considering the hiring of teachers, than to considering their dismissal.

But while this may be true, a study of current educational litigation will show that it is usually the latter of these two aspects of teacher employment that accounts for the greater number of suits between local boards and their teachers.

An interesting case involving this aspect of school board operations was recently reported in the Supreme Court of Errors for the State of Connecticut.[1]

Facts of the Case

Conley, an instructor of physical education in the New Britain public schools since September, 1936, was dismissed at the end of the school year in 1953 "because of gross inefficiency . . . in the normal duties of his teaching position." He had been notified by the superintendent of schools, in writing (on May 11, 1953): of the board's intention to terminate his contract; of the detailed charges against him; and of the procedure whereby he could request a hearing before the board.

At the conclusion of the hearing, conducted on June 25, July 1 and 2, and August 4 and 6, and at which Conley was represented by counsel, the board (by a majority vote) resolved that the charges of gross inefficiency had been proved by a preponderance of the evidence, and warranted his dismissal as of June 30, 1953.

The Court of Common Pleas upheld the board's action. In his appeal, Conley charged that the action of the board was "illegal, arbitrary, discriminatory, and in abuse of its discretion" because (1) the board refused to grant the motion of the plaintiff for a bill of particulars of the charges against him, (2) it denied him the right to cross-examine the witnesses it produced, and (3) it held that the evidence was sufficient to establish his gross inefficiency and therefore warranted his discharge."

This decision of the Court of Common Pleas is now being appealed.

Issues in the Case

The basic issue in this case, of course, was whether the action of the board was so arbitrary, discriminatory, and in abuse on the board's discretion as to be illegal.

The broader points at issue — and these could well be applicable in jurisdictions other than Connecticut — involve the possible judicial view concerning the general problem of acceptable procedures to be employed at teacher dismissal hearings.

It will be with this latter question that this article will deal.

Findings of the Court

The present court first pointed out that it was not the function of the court "to retry the case. The defendant board is an administrative agency, although it acts in a quasi-judicial capacity. To render a decision, it must weigh evidence and reach conclusions. . . . The credibility of witnesses and the determination of issues of fact are matters within its province. . . . [The] function of the court is to determine whether or not the board acted illegally . . . [i.e.] in violation of the powers granted to and duties imposed upon it. . . . [If] the conclusions reached [by the board] are legally supported by the evidence . . . the court cannot change them."

The court then turned to the first claim in Conley's appeal. After commenting that what Conley apparently meant by "a bill of particulars" was "a more specific statement of the charges preferred against him," the opinion went on: "While the board was acting in a quasi-judicial capacity, it remained, nevertheless, an administrative agency before which proceedings are necessarily informal. It was not necessary for it to follow technical rules of pleading and procedure."

The facts that the hearings were held over a five-day period; that early in the hearings Conley was given an opportunity to examine the board's records, minutes, and files; that the hearing was postponed to enable him to prepare his case; and that witnesses were summoned at his request, demonstrated — in the court's view — that Conley had a full and fair opportunity of hearing what evidence there was against him and of presenting evidence in his own behalf. Accordingly, his first claimed basis for the appeal could not be allowed.

In connection with Conley's second ground for appeal, the court noted that the propriety, relevancy, and limits of cross-examination "are within the reasonable discretion of the trier. . . . The transcript of the proceedings before the board . . . demonstrates that the plaintiff was given a fair opportunity of exercising his right to examine and cross-examine witnesses."

With regard to the claim that the evidence did not support the finding and conclusions of the board, the court noted: "Because of the requirement of the tenure act that the decision of the board shall be based upon the evidence supporting the specific charge [viz., gross inefficiency] . . . it was the duty of the . . . court to examine the evidence from that point of view. The board, however, is the judge of the credibility of the witnesses and has the power to decide all factual matters before it."

The opinion then continued: "An examination of the entire transcript of the hearings disclosed . . . that the board's conclusion that the plaintiff should be dismissed was adequately supported by the evidence within the rule stated. . . . A board has the right to demand that a teacher know his subject and that he be capable of arousing and holding the interest of his pupils and maintaining discipline."

Significance of the Case

With regard to the specific issue of Conley's "gross inefficiency," it is significant, of course, that the court held that the record supported the board's findings that the teacher should be dismissed.

But it is with regard to the court's views concerning the broader aspects of this case; viz., *the desirable procedures to be followed during a teacher dismissal hearing* that the opinion furnishes several legal principles of wide application.

First: In conducting a dismissal hearing, a local board is acting in a quasi-judicial capacity. However, the board is still an administrative agency before which: (1) the proceedings may be necessarily informal; (2) the technical rules of pleading and procedure need not be followed; (3) the strict rules of evidence are not binding.

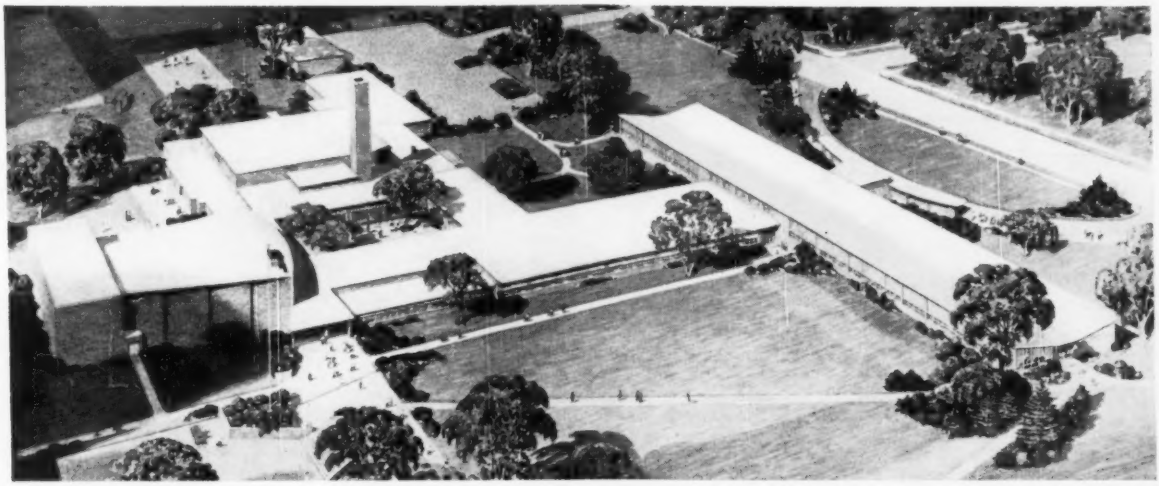
Second: The test of a board's conduct of a dismissal hearing is whether the employee involved has a reasonable opportunity to hear and to be heard upon the charges preferred against him and whether the proceedings are conducted in a fair and impartial manner.

Third: The conduct of a dismissal hearing must not violate the fundamentals of natural justice. That is, there must be due notice of hearing, and at the hearing no one may be deprived of the right to produce relevant evidence or to cross-examine witnesses or to be fairly apprised of the facts upon which the board is asked to act.

Fourth: At a teacher dismissal hearing, the school board is the judge of credibility of witnesses, of the relevancy and limits of cross-examination, and has the power to decide all factual matters brought before it.

Fifth: In considering the possible dismissal of a teacher for gross inefficiency, the employing board has the right to expect that the teacher knows his subject, and that he is capable of holding pupil interest and of maintaining discipline.

[1] *Conley v. Bd. of Educ. of the City of New Britain;* cited as 123 A. 2d 747 in the National Reporter System.



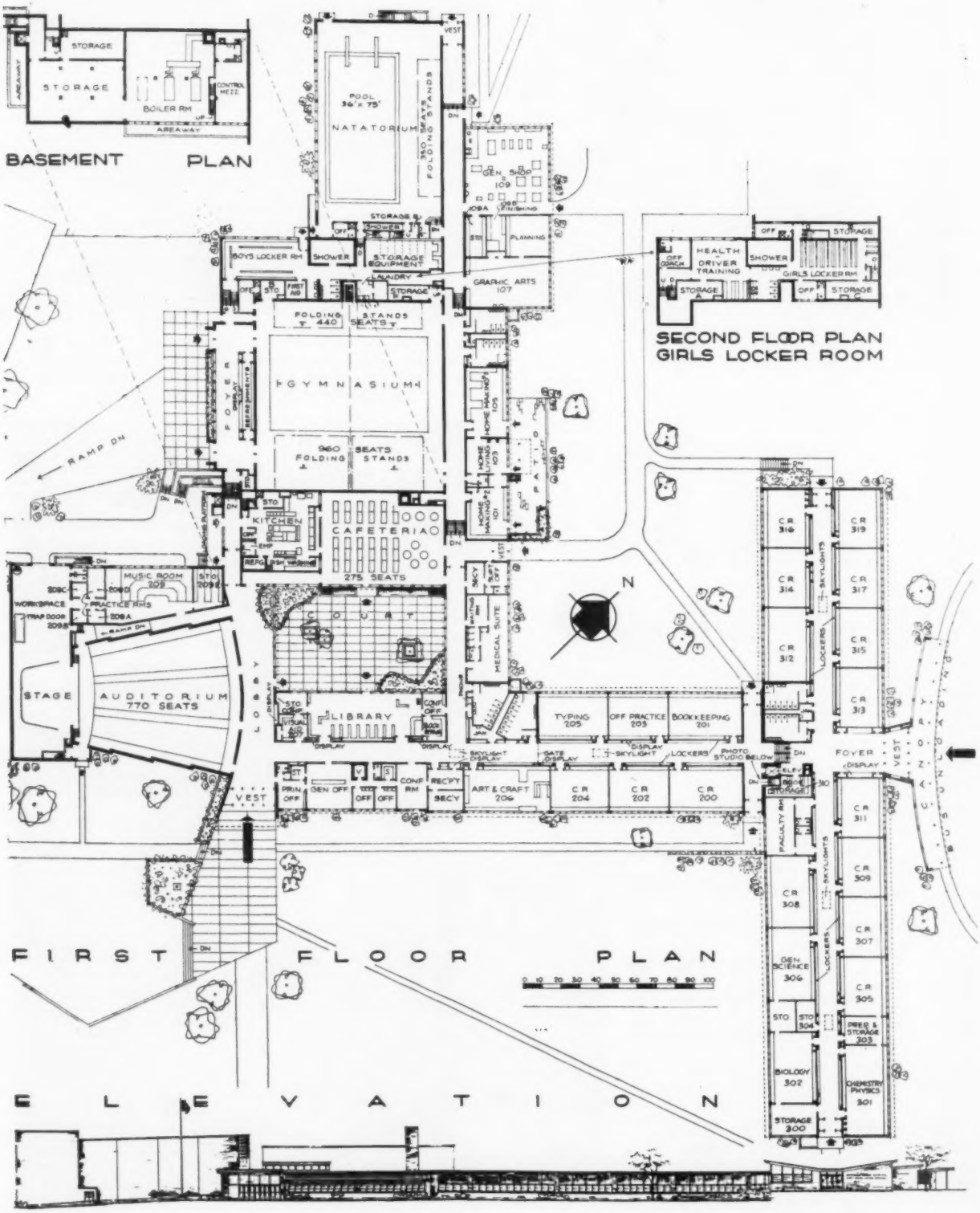
A perspective and view of the interior court of the Emmaus high school, East Penn Union School District, Pa. — Wolf & Hahn, architects, Allentown, Pa. Dr. Lemmon Stoudnour is superintendent.

The EMMAUS High School

The East Penn, Pa., Union School District directors stressed quality in their desire to provide a physical plant that would facilitate maximum learning for their children

The culmination of effort "to do the thing most beneficial for our children" on the part of representatives of the five districts that make up the East Penn, Pa., Union School District is the recently completed tribute to whole-team co-operation, the Emmaus high school.

Simple elegance is achieved in the brick and terrazzo auditorium foyer shown above.


BASEMENT PLAN
STORAGE
STORAGE
BOILER RM
AREAWAY
CONTROL MEZZ
POOL 36' x 75'
NATATORIUM
350 SEATS FOLDING
VEST
GEN SHOP 109
ADDA
STORAGE
SHOWER
BOYS LOCKER RM
STORAGE EQUIPMENT
LAUNDRY
PLANNING
GRAPHIC ARTS 107
FOLDING 440 STANDS SEATS
GYMNASIUM
960 SEATS FOLDING STANDS
FOYER
RAMP DN
HOME PLANNING 105
HOME PLANNING 103
HOME PLANNING 101
KITCHEN
CAFETERIA
275 SEATS
MUSIC ROOM 209
PRACTICE RMS
WORKSPACE
STAGE
AUDITORIUM 770 SEATS
LOBBY
LIBRARY
MEDICAL SUITE
TYPING 205
OFF PRACTICE 203
BOOKKEEPING 201
SKYLIGHT
LOCKERS
PHOTO STUDIO BELOW
PRIN OFF
GEN OFF
CONF RM
RECPTN SECY
ART & CRAFT 206
CR 204
CR 202
CR 200
FOYER
DISPLAY
CR 316
CR 314
CR 312
CR 319
CR 317
CR 315
CR 313
CR 311
CR 309
CR 307
CR 305
FACULTY RM
GEN SCIENCE 306
PREP & STORAGE 303
BIOLOGY 302
CHEMISTRY PHYSICS 301
STORAGE 300
STO 304
FIRST FLOOR PLAN
SECOND FLOOR PLAN
GIRLS LOCKER ROOM
HEALTH DRIVER TRAINING
SHOWER
GIRLS LOCKER RM
OFF COACH
ELEVATION

It is a plant in which quality was stressed by the 24-member union board which planned the school.

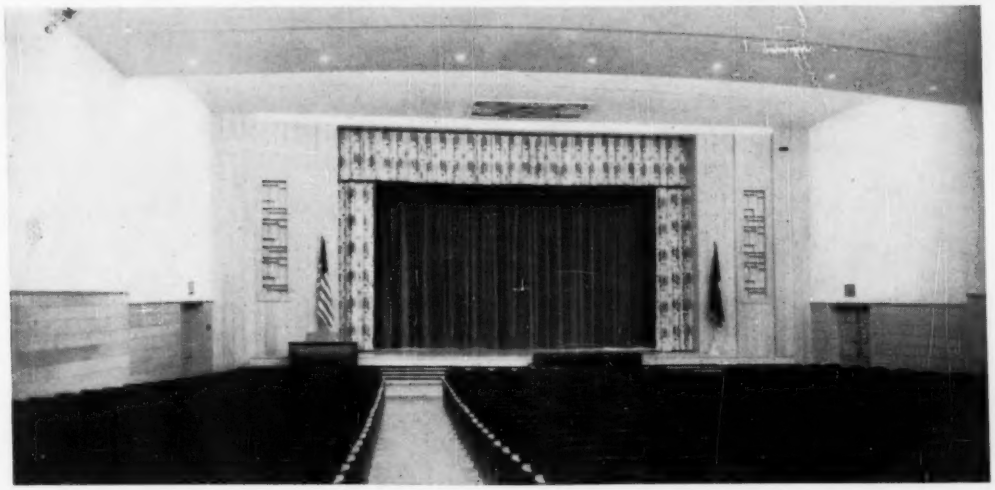
Physically the plant consists of an academic area of 15 classrooms; art, commercial, and home-economics departments; three laboratories for science instruction; an industrial-art shop with a mechanical drawing room; a library, music room, and public speaking area; eight offices, a clinic, and two teachers rooms; a cafeteria, auditorium, gymnasium, and natatorium.

Basically the functional plan approved by the board meant a one-story structure with a basement plan of boiler room and storage areas and a second floor of girls' lockers and showers and a health and driver training room.

Construction Materials

The basic construction was steel frame with brick and concrete block. The classrooms have plaster walls, acoustical plaster ceilings, asphalt tile floors, unit-ventilator heating, and louvered fluorescent lighting. The corridors

Two views of the Emmaus home living department are at the right. The upper illustration shows the all-purpose cooking room with its unit kitchens, while below that is the all-purpose sewing room. Directly below is an illustration of the auditorium that can accommodate an audience of 770 persons



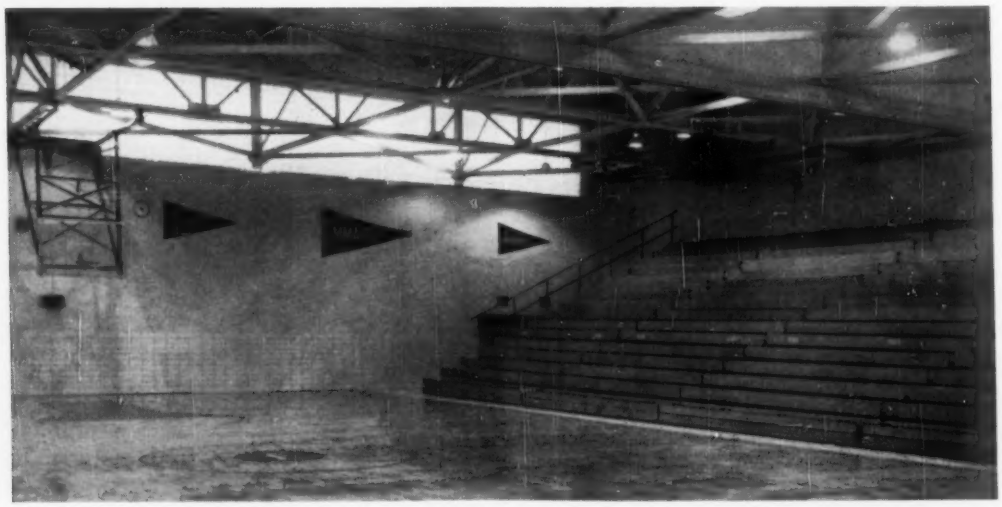
and stairs have a ceramic tile wainscot, plaster walls, acoustical tile ceilings, and terrazzo treads. The toilet rooms have ceramic tile flooring and wainscoting.

Built on a site of 41 acres, the Emmaus high school has a pupil capacity of 710 for grades nine through twelve. The total cost of this quality school was $3,200,000 which, for 125,140 square feet, means an approximate per-pupil cost of $2,615 and a contract cost per square foot of $14.84.

Site Improvements

The outdoor area provides adequately lighted paved areas for parking 785 automobiles. The plan for the site also includes a baseball diamond, two softball fields, a football field with a quarter mile track and stands to accommodate 4000 spectators. There will also be a practice football field equipped for night lighting, four tennis and two volleyball courts, and a space for field hockey.

At Emmaus, the industrial-arts department includes shops for graphic arts, a planning and drawing area, and a general shop with facilities for working in wood, metal, electricity, and plastics. A paint spray booth and storage room are adjacent to the general shop. At the left above is a view of the graphic arts room, while below is the general shop. Directly below is the Emmaus gymnasium with its bleachers for seating 1400 persons.



A Gymnasium-Music Building for Toms River

The Problem

As an addition to its high school plant, Toms River, N. J., needed a large gymnasium with locker and team room facilities, plus band and choral music rooms with practice area and storage. Strict economy was required of the architect by the board of education, but quality was not to be sacrificed.

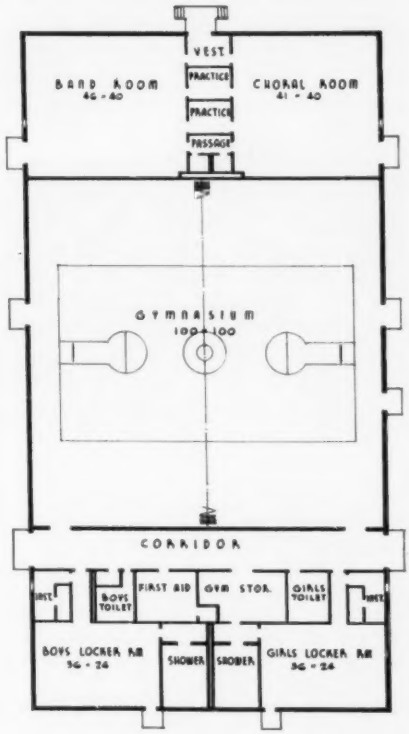
The Solution

1. Gymnasium
   10,000 square feet floor area with electrically operated dividing door, seating capacity of 1500, with locker room facilities for 1400, plus storage and first aid rooms.
2. Choral Room
   1600 square feet
3. Band Room
   1800 square feet, plus individual practice rooms

Construction Details

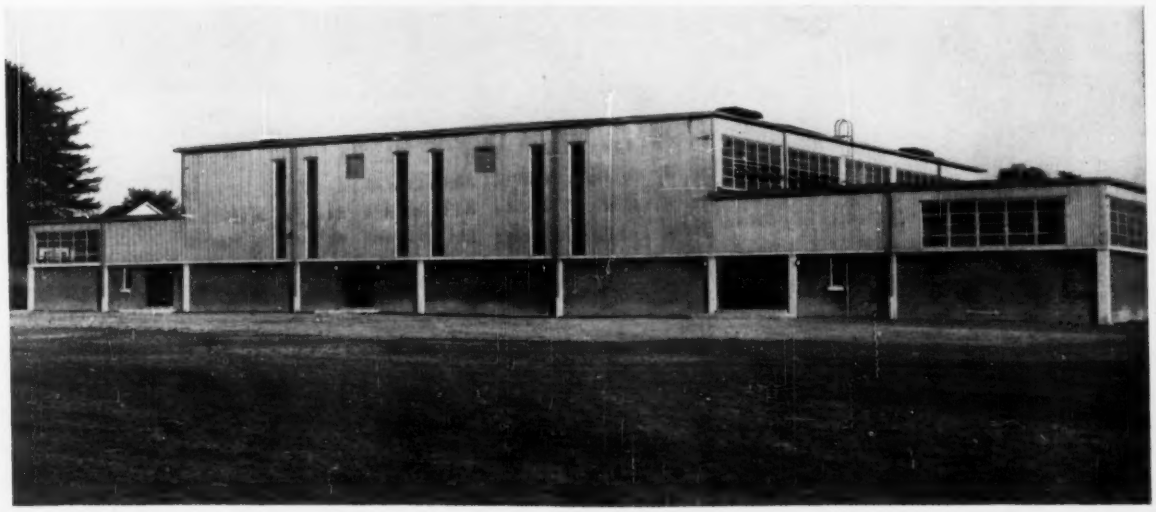
A steel-framed structure, utilizing a combination of exposed concrete block and three-inch "sandwich" panels for wall construction was submitted to the board and approved by them. The panels consisted of an aluminum outer skin, Fiberglas insulation, and a painted steel finish on interior. Roof construction is three-inch precast insulating plank on steel framing, with exposed surface painted.

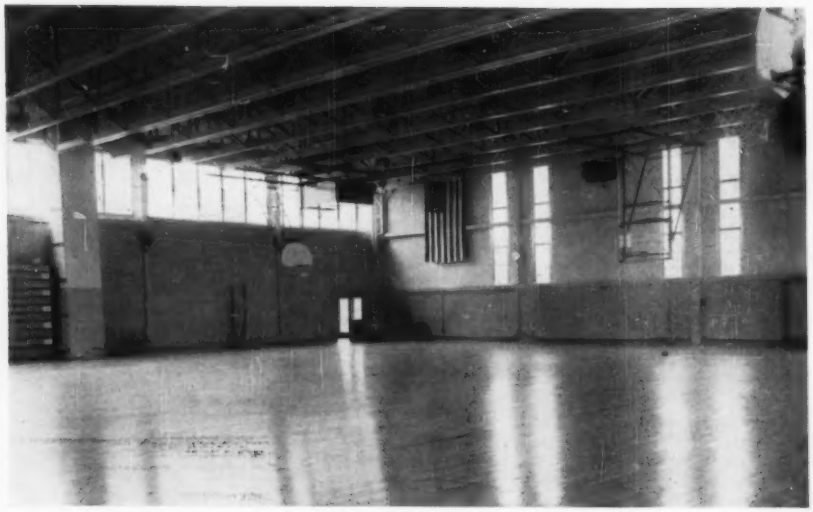
Floor construction consists of concrete slab on gravel with "floating" wood flooring applied over membrane waterproofing in gymnasium.

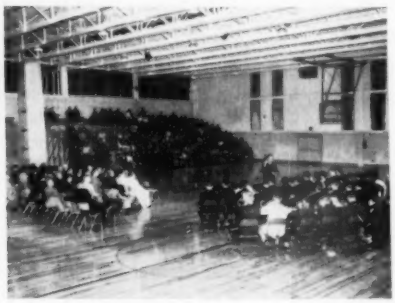


GYMNASIUM BUILDING
FLOOR PLAN

The floor plan and a front exterior view of the gymnasium-music addition to the Toms River, N. J., high school — Micklewright and Mountford, architects, Trenton, N. J. Mr. Clyde W. Slocum is superintendent of schools at Toms River.







Two illustrations of the Toms River gymnasium. The room measures 100 x 100 feet, and has retractable gymnasium seating for 1500 spectators. The walls are of exposed masonry and metal panels; the ceiling exposed insulating panels.

To combat wear, the floor in the gymnasium corridor is terrazzo. The floor in locker room areas is ceramic tile with tiled walls in shower rooms and tiled wainscot in corridor. The floor in the music suite is asphalt tile with built-in wood risers in choral and band rooms.

Built-in equipment consisted of instrument and music storage cabinets, 1400 box lockers and 150 master lockers, and an electrically operated bifolding partition.

The exterior finish of the building are concrete blocks painted on the lower portion of building with aluminum surfaced panels above. Windows are aluminum. Foundations were designed to permit brick veneering of lower section at later date.

Heating is accomplished by hot water conversion of steam brought from adjoining high school building. In addition to normal ventilating requirements, summer exhaust fans are provided for the gymnasium.

Lighting is incandescent throughout.

The Costs

A breakdown of pertinent construction cost data is listed below:

Total area — 19,625 square feet
Total cubage — 426,930 cubic feet
Total construction cost — $276,378
Cost per square foot — $14
Cost per cubic foot — 65 cents

One of the two rooms in the music suite of the Toms River addition. In back is shown one of the two practice rooms and a storage area for uniforms.

Functional construction and long-range planning characterize how they are—

Building Schools in Jefferson County

R. H. JOHNSON

THE BUILDING PROGRAM

With student enrollments rising across the nation, every school administration faced the problems of classroom shortages. In 1952, Jefferson County had 13,830 students and 404 regular classrooms with a projected enrollment of 21,626 for fall, 1956. Jefferson County was faced with a perplexing problem indeed.

Fortunately, the citizenry of Jefferson County had the foresight to pass two bond issues totaling 18 million dollars which provided 445 additional classrooms.

Classroom Features

The new classrooms measured 30 feet square, which allows great flexibility for class activity. More pupil desks can be placed in such a room and more variety in arrangement is possible. All classrooms are planned for a normal pupil load of 35. The classrooms are equipped with storage space, clothes closets or racks, work counters, and bookshelves. The primary rooms have, in addition, lavatory facilities for both boys and girls, drinking fountains, and sinks.

Adequate chalk-board and tack-board facilities were provided in each room. The chalk boards measured a minimum of 48 square feet and many measured up to 72 square feet. During many intervals, the chalk-board and tack-board expenditures came under fire. However, the administration felt that the chalk-board was needed for effective daily instruction and the tack board was one of the most effective ways to exhibit children's work and provided excellent motivation for continued interest and improvement in skills of performance. It was also pointed out that it offers an opportunity to exhibit some of the excellent educational materials available from commercial sources, magazines, and newspapers.

The kindergarten rooms, of necessity, are much larger, have an area of approximately 1200 square feet. Some of the rooms have benches along the walls underneath the windows which the children can use for work space. Under the bench is additional storage space that can be used to store both the children's own equipment and the school's. The floor tiles have been laid to form patterns that are useful in arranging the children for varied play activities in the daily program. The kindergarten rooms are equipped with separate cloak rooms.

Multi-purpose rooms were provided in the smaller schools. They serve as cafeteria, gymnasium, auditorium, and classroom.

Health clinics are located adjacent to the administrative unit. A large window has been cut out in the wall between the office and the clinic which makes it possible for the building clerk or principal to observe any child who is ill and assigned to the clinic.

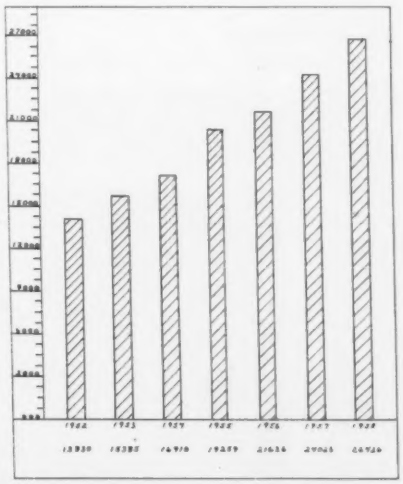
Portable Stages

Portable platforms were provided in schools not having stages. The platforms were constructed in 12 separate sections with two sets of risers and offer a floor space of 144 square feet when all are used. They can be used in parts, or with all sections, in classrooms, multi-purpose rooms, placed in the center, at the side, or at either end of the room. When not in use, they can be disassembled and stored. They fit together in such a way as not to require blocks or nails and are light enough to be handled by elementary children. Very little storage space is required for them when not in use.

The auditoriums in the senior high schools have a seating capacity of approximately 500. The gymnasiums will accommodate about 2000 spectators. These also have a folding partition through the center which, when pulled out, makes two areas where classes may be conducted at the same time.

The senior and junior high school buildings are so planned that related areas are grouped together. Provisions were made in the construction to meet the needs of particular subject areas, such as adequate storage space for the science department; map rails for the social studies department; the homemaking laboratory has a

Mr. Johnson, recently awarded a five-year extension of contract, has been superintendent of schools in Jefferson County, Colo., since 1953. This school system was the subject of the Edward R. Murrow "See It Now" television program Ballots at Bear Creek last November, because the system's progress and problems were thought typical of the American scene.



This chart shows the rapidly growing school population that faced the schools in Jefferson County, Colo. From approximately 14,000 students in 1952 to 26,500 in 1958, the rise in just six years would be about 12,500 students, the reason they are building schools in Jefferson County.

serving counter between the kitchen and the serving room; the instrumental music room has compartments suited for the different band instruments, etc. Through such careful planning, the most of movable equipment was kept to a minimum.

Playgrounds

Asphalt play pad areas have been provided outside the school buildings. They measure 40 by 80 feet and are installed at a cost of $768 per play pad area. Baseball backstops have been provided in some of the schools. The 20 baseball backstops came to a total of $5,840.

A $13,000 expenditure represented 9000 feet of steel fencing installed around the schools. Gravel was purchased by the tons.

With the facilities the bond issue provided, Jefferson County is able to cope with the present student enrollment of 19,259 and operate in full session. There are five new schools now under construction and funds to purchase several cottage schools in the near future. The Jefferson County R-1 School District, through long-range planning, is ready to face the ever increasing tide of enrollment which is engulfing the country.

SLATER ELEMENTARY SCHOOL

We should now like to take you on a tour of one of Jefferson County's most typical and recently completed modern buildings — the Slater elementary school.

The Slater classrooms measure approximately 30 feet square, which allows greater flexibility for class activity. More pupil desks can be placed in these classrooms and more variety in arrangement is possible. These classrooms were planned for a normal pupil load of 35. They are equipped with storage space, clothes closets, work counters, bookshelves, chalk boards, and large tack boards. The primary rooms have, in addition, lavatory facilities for both girls and girls, drinking fountains and sinks.

The Kindergarten

The kindergarten room, of necessity, is much larger. It has an area of approximately 1200 square feet. Benches have been built along the walls underneath the windows which the children can use for work space. Under the bench is additional storage space that can be used to store equipment belonging to the children as well as the school. The floor tiles in this room have been laid to form patterns that are useful in arranging the children for varied activities in the daily program. A separate cloak room with built-in benches is also provided.

Stepping outside the kindergarten room you will find a patio for the kindergarten children with a brick enclosed wall to protect them from the wind. The kindergarten children hold classes on the patio when the weather is nice. Easels can be set up for art sessions.

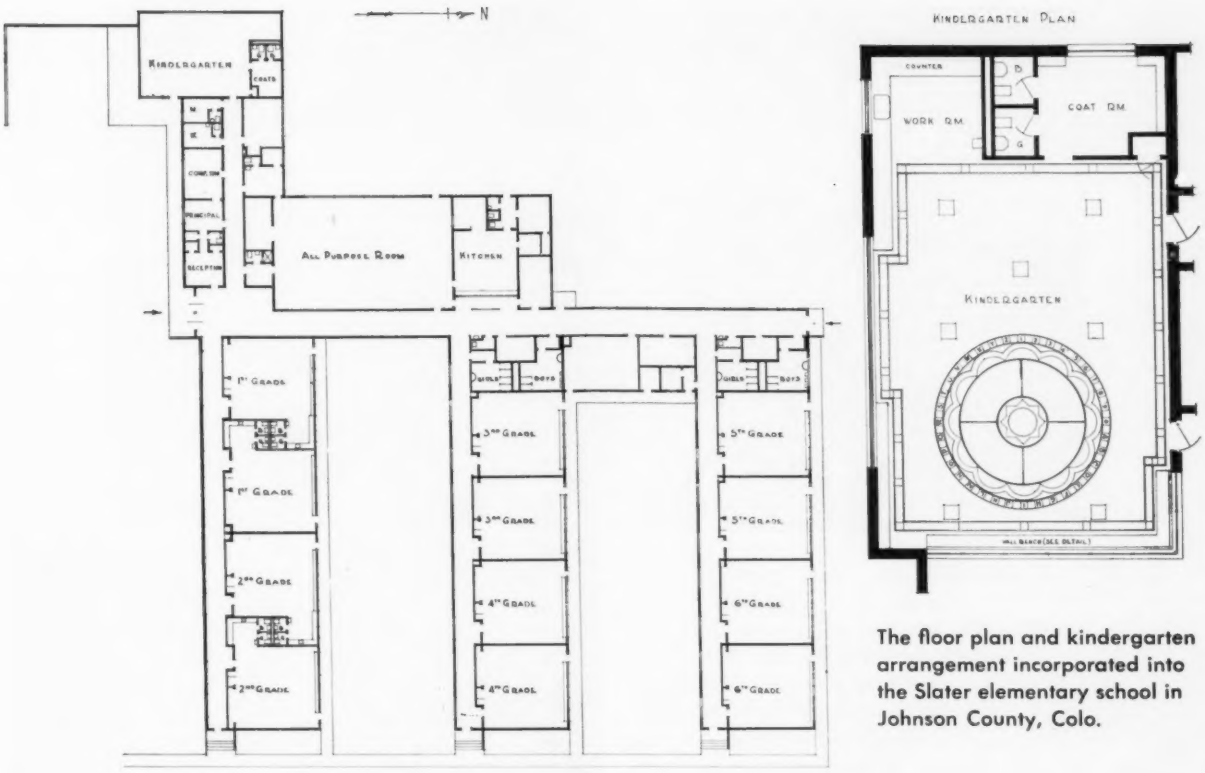
Adequate chalk-board and tack-board facilities were provided in each room. The chalk boards measure approximately 80 square feet and are used in presenting instructional materials. Several children can use the chalk boards simultaneously for drill work. The tack boards were found to be one of the most effective ways to display children's work and provide excellent motivation for continued interest and improvement in skills and performance. It offers an opportunity to exhibit some of the excellent educational materials available from commercial sources, magazines and newspapers.

One room of classroom size provides a central library for grades 3 through 6. The first and second grades and kindergarten have room libraries.

Slater's Multi-Purpose Room

A large multi-purpose room was constructed in the Slater elementary school. It serves as a cafeteria when the tables and benches which fold into the wall are pulled out. It serves as a gymnasium, and portable athletic equipment can be moved in and out providing wide variety for the physical education program. It serves as a classroom when chairs are brought in, and may be converted into an auditorium with

The exterior entrance to the Slater elementary school, Jefferson County school district, R-1, Jefferson County, Colo. — John K. Monroe, architect, Denver, Colo.



The floor plan and kindergarten arrangement incorporated into the Slater elementary school in Johnson County, Colo.

a seating capacity for 300. A portable platform stage is also available and is constructed in 12 separated sections with two sets of risers and offers a floor space of 144 square feet when all are used. It can be used in parts, or with all sections, in classrooms, multi-purpose rooms, placed in the center, at the side, or at either end of the room. When not in use, it can be disassembled and stored. It fits together in such a way as not to require blocks or nails and is light enough to be handled by elementary children. Very little storage is required for the platform when not in use.

The cafeteria is adjacent to the multi-purpose room. It has been provided with fine new modern equipment such as potato peelers, steam tables, automatic diswashers, mixers, an electric garbage disposal, refrigerator, and walk-in refrigerator. All counters, sinks, and worktables are of stainless steel. The ranges and ovens are large and offer adequate cooking facilities for food preparation for the 500 children enrolled.

The health clinic was constructed across the hall from the administrative unit. A large window separates the office and the clinic which makes it possible for the building clerk or principal to observe any child who is ill and assigned to the clinic.

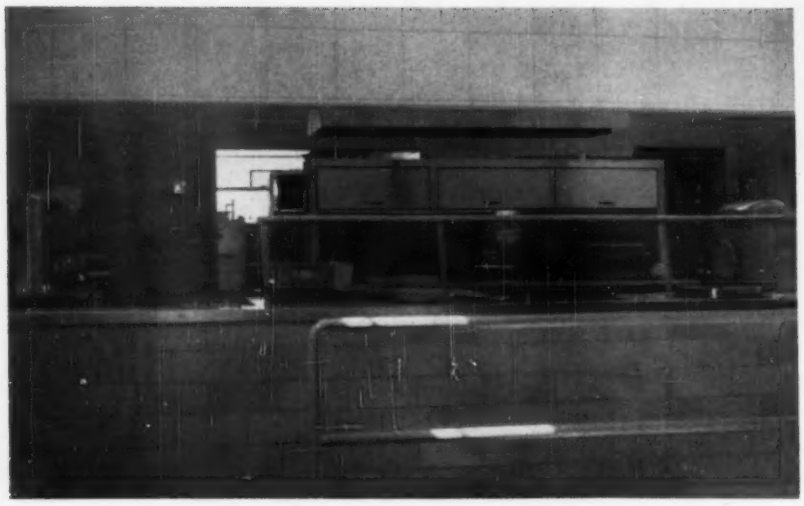
A large play area has been provided the children. It measures 40 by 80 feet and was installed at a cost of $768. It can be cleaned easily and even when snow is on the ground the children can walk out to the play pad area and enjoy games. Jungle Jims, merry-go-rounds, swings, slides, and other play equipment have been installed. A baseball field with backstop was laid out at a very low cost.

The total cost of the Slater elementary school amounted to $412,033.53.

With the fine physical provisions and excellent educational staff, a fine educational program is under way.

An illustration of Slater's kindergarten room

A typical classroom (above) and tackboard area (right) in the Slater school. Physically, the classrooms have glazed tile and plaster walls; asphalt tile flooring; fluorescent lighting; and steam, unit-ventilator heating. In the Slater school, there are 12 classrooms, a kindergarten, and a 60 x 40-foot multi-purpose room. Serving 470 students, the school had a total contract cost of $427,210 or about $14.50 per square foot.



The arrangement of kitchen-cafeteria and serving line set-up at Slater is illustrated in these views of the multi-purpose room (above) with the in-wall tables down and the kitchen-counter area (left).

Seeing the Federal Government at Work*

ELAINE EXTON

More than fifty independent agencies, ranging in character from the temporary Woodrow Wilson Centennial Commission with two employees to the permanent Veterans Administration employing approximately 177,940 workers, besides the ten Cabinet Departments and the various components of the Executive Office of the President, including the Budget Bureau and National Security Council, make up the Executive Branch of the government responsible for carrying out the nation's laws.

Students will understand their government better if they see at least one of these executive establishments in action. The farther in advance your group can notify an agency of an intended visit, the better. If you write their officials at least a month ahead how many will be in your party and when you expect to arrive at their building (day and hour), it will make it easier for them to reserve conference space and have officials available for briefings so you won't be kept waiting.

Sending some background information about your group will also be helpful. If the officials know the ages and grade levels of the students and the topics and problems in which they are interested, they will take these into consideration in shaping arrangements to your needs. When requesting that pertinent materials be sent in advance, be definite about the subjects you want them to cover.

In writing the director of information at the Department of Agriculture, for example, specify what agricultural topics you would like to have one or more of their specialists talk to you on in their main building, as nutrition or gardening or poultry raising. Or tell them if you would like to spend a day inspecting improved methods of farming and homemaking at their 11,000-acre Research Center at Beltsville, Md., 15 miles northeast of Washington, D. C.

Each of the ten Cabinet-rank Departments — Agriculture, Commerce, Defense, Interior, Justice, Labor, Post Office, State, Treasury, and Health, Education and Welfare — as well as the Civil Service Commission and some of the other executive offices are happy to set up programs for visiting school groups during government weekday working hours that feature a speaker, movie or other visual displays, and a discussion period when the young visitors can question well-known government personalities about the work of their agencies. Some of the government establishments, as indicated below, have special features that can be shown on guided tours of the building, while others are primarily aggregations of offices.

When no other name is specified in the tour descriptions that follow, the official point of contact for making appointments is the agency's information director. Or you can "book" reservations at the 11 agencies listed above through the Greater National Capital Committee of the Washington Board of Trade, 1616 K Street, N.W., Washington 6, D. C., which has developed a co-ordinated schedule setting aside a particular day and hour each week when these departments will receive out-of-town students.

They can mail you a leaflet, *Appointment in Washington*, presenting this timetable which contains capsule summaries of the trips that can be requested through their facilities. Copies of this were recently sent to members of the National Association of Secondary School Principals.

Executive Department Briefings

Here are some examples of what you will do on a scheduled visit to an Executive Department.

Post Office

The Post Office Department, 12th and Pennsylvania Avenue, N.W., only offers its one-hour student tour on Thursday mornings at 11. Reservations can be addressed to L. Rohe Walter, Special Assistant to the Postmaster General.

After a briefing in the department's fifth floor conference room on the place of the postal service in the nation's economy and government, a film is shown that follows the course of a letter through the postal system from the time it is dropped in a mail box until its delivery.

During the tour stops are made at two spots that are usually not open to visitors — *the Postal Inspectors Museum* which contains guns carried in famous train robberies as well as devices used in mail frauds and *the Postal Inspectors Identification Laboratory* where scientific methods for detecting postal law violations are demonstrated.

Health, Education and Welfare

Wednesdays at 10 a.m. is the period when the Department of Health, Education and Welfare, 330 Independence Avenue, S.W., will receive school groups according to the schedule worked out by the Greater National Capital Committee. If this date does not fit in with your itinerary, write Mrs. Ann Bergquist, confidential assistant to the Secretary of Health, Education, and Welfare what time would be most convenient.

The program at the youngest of the executive departments (established April 11, 1953) will be focused on how its activities serve every member of the family from infancy through old-age and affect their daily living. Key officials will describe the department's main functions and illustrate some aspects of its work through color slides.

Before leaving the students will have a chance to ask questions of a panel composed of a representative from each of the department's five major operating agencies, namely, the Public Health Service, Office of Education, Social Security Administration, Office of Vocational Rehabilitation, and Food and Drug Administration.

Defense Department

Visiting the Pentagon in Arlington, Va., about 20 minutes by bus from Washington, is an engrossing event for many students. Officials advise school groups to allow at least two hours for a conducted tour of the Headquarters of the Department of Defense which includes the Army, Navy (Marines), and Air Force, the longest trip to an executive department — and no wonder — for not only does the Defense Department have the vital mission of maintaining the security of our nation, but it is housed in the world's largest office building covering more than 30 acres.

It may be helpful in visualizing the tremendous size of this five-sided giant to know that five U. S. Capitol Buildings — wings and all — would fit neatly within the Pentagon's walls which house 29,000 military and civilian employees in daytime — a number greater than the normal working population of a city of 100,000 people. Its telephone exchange facilities are large enough to service a city the size of Wheeling, W. Va., or Galveston, Tex.

The Department will, if requested, conduct student trips through their premises between 9:00 a.m. and 3:00 p.m. on any weekday. To make arrangements, write James G. Dunton, Deputy

**The third in a series of articles aimed at helping school officials arrange student trips to Washington that will have educational and citizenship significance. A fourth article will appear shortly.*

Director, Special Activities, Department of Defense, Washington 25, D. C., giving as much information as possible about your group and its interests so that they can develop a program to fit your preferences.

In addition to seeing some of the unusual features of the building, these trips generally include a briefing on the work of the department, an explanation of the construction of the Pentagon, and a review of a movie or displays of weapons, historical uniforms, paintings, small scale ship models, or similar items.

Lunch With Federal Workers

While in a federal building you might find it interesting to lunch in a cafeteria with government workers. These are not only conveniently located but serve low-cost, wholesome menus. A good place to plan such an experience is at the Pentagon whose two restaurants and six cafeterias serve more than 17,500 meals each weekday.

Since the food facilities at other government units are far more limited if you wish to sample the fare elsewhere, plan to eat before or after the peak hours — that is as early as 11 or not until 1:30. For groups of 20 or more it is wise to make prior arrangements. The restaurants at the Capitol and in the Senate and House office buildings are not open to the general public.

G-Men and Currency Production

While holding student briefings is an innovation at some executive departments, the regularly conducted tours with lectures at the Justice Department's Federal Bureau of Investigation (FBI) and the Treasury Department's Bureau of Engraving have long been popular Washington tourist attractions.

As the home-base of the G-Men, the FBI is an especial favorite of young visitors who are fascinated by the displays of lawbreakers' weapons and instruments used in crime detection, the exhibits from actual FBI investigations, a view of the scientific laboratory that aids in tracking down wanted criminals, a marksmanship demonstration by one of the special agents at an indoor target range. An explanation of the FBI's fingerprint system which includes a noncriminal as well as a criminal file to assist in locating missing persons in times of disaster and in establishing the identity of amnesia and accident victims also acts as a magnet.

FBI tours start at the 9th and Pennsylvania Avenue entrance of the Department of Justice Building and last for about an hour. (*Hours:* Weekdays 9:30 a.m. to 4 p.m. *Free* admission.) If your group has more than 15 members, write to FBI Director J. Edgar Hoover several weeks prior to your arrival advising him of your group's size and time preference.

The Bureau of Engraving and Printing, 14th and C Streets, S.W., has a guide force to escort visitors through the building to see the main processes by which U. S. paper currency is manufactured. Tours leave the 14th Street entrance at frequent intervals. (*Hours:* Weekdays 8 to 11 a.m. and 12:30 to 2 p.m. *Free* admission.) Since all groups are taken in turn on their arrival, advance reservations are not required.

During the 30 to 40 minute itinerary, visitors witness the printing of currency by plate printers; the over-printing of seals, signatures, and serial numbers on bills; the stacking, counting, and examining of freshly printed money, and other related operations. They learn, for instance, that about 70 per cent of the currency turned out there is the dollar, the most circulated of American bills, whose average life span is 12 to 13 months.

In addition to a daily output of around $30 million in paper money, produced at a cost of less than one cent a bill, this bustling bureau engraves and prints government bonds, notes, various certificates, and revenue, customs, postage, and savings stamps.

Permanent Exhibits

Several of the executive department buildings have permanent displays that can be visited before or after a briefing session or viewed without advance notice any weekday during government working hours.

Commerce

The main lobby of the Department of Commerce, 14th Street between E and Constitution Avenue, N.W., is the scene of a series of industrial and business exhibits throughout the year. (*Hours:* Weekdays 8:30 a.m. to 5:00 p.m. *Free* admission.) A huge census clock located there records the increasing population of the nation with colored lights that flash on and off each time a birth occurs in the United States (every 8 seconds) or someone dies (every 21 seconds), immigrates here (every 2 minutes) or leaves our country (every 24 minutes).

Two of the government agencies have sales outlets in this central location — the Superintendent of Documents which displays popular government publications that can be purchased at this branch office and the Interior Department's Bureau of Indian Affairs whose wares are handcraft products of American Indians. Directly beneath the lobby and accessible from the main entrance is an aquarium stocked with native American fish and such amphibians as turtles and salamanders in realistic settings. (*Aquarium hours:* Weekdays and week ends 8:30 a.m. to 5:00 p.m. *Free* admission.)

When asking the Office of Administrative Services of the Department of Commerce to arrange a briefing or a visit to the map making activities of the Coast and Geodetic Survey in its main building, be sure to specify if you are interested in taking a conducted tour at some of its bureaus in other parts of the city, as for example, the National Bureau of Standards, the Weather Bureau, or its Bureau of the Census.

Interior

The Department of Interior on C Street between 18th and 19th Streets, N.W., has a first floor museum that traces the Department's role in the development of the United States, its history, aims, and current activities. (*Hours:* Weekdays 7:45 a.m. to 4:15 p.m. *Free* admission.) Each of its ten exhibit galleries is devoted to one of the Department's bureaus, as, Fish and Wildlife Service, Mines, National Park Service, Land Management.

The displays include Indian exhibits of the past and present, the growth of the public domain and the opening of the West, the aerial survey work of the Geological Survey, colorful handcraft specimens of the natives of Alaska, Guam, Hawaii, and other American Territories. Paintings of historic events, life-like dioramas, scientific models as well as special charts and maps help visualize the manifold activities of the department. In an Indian Crafts shop opposite the museum contemporary basketry, pottery, rugs, silver ornaments, and other authentic Indian articles may be examined or purchased.

Post Office

At the Post Office Department, 12th and Pennsylvania Avenue, N.W., a permanent stamp exhibit in Room 1315 on the ground floor is a center of attraction. Here every U. S. postage stamp since the first was printed in 1847 is placed on view and a large collection of foreign stamps from every country in the world is also exhibited. (*Hours:* Weekdays 9 a.m. to 5 p.m. *Free* admission.)

The Philatelic Agency maintains a sales window in this exhibition room and in Room 5509 where visitors can buy commemorative stamps of some past and current issues, including some of the 1938 Presidential Series and the 1954 Liberty Series.

Treasury

If entering the main Treasury Building from East Executive Avenue across from the White House you come into an exhibit room with examples of activities of some Treasury Department component units, including such law enforcement agencies as the Customs Bureau, Narcotics Bureau, and Secret Service. (*Hours:* Weekdays 9:30 a.m. to 3:45 p.m. *Free* admission.)

Here you see displays ranging from currency printed by the U. S. Bureau of Engraving and coins "struck" by the U. S. mints in Philadelphia, Denver, and San Francisco to samples of bogus money and counterfeiting equipment. Secret Service photographs depict the protection of the president.

Purchasing Coal in Peoria

CHARLES M. GREELEY
Director of Business
Peoria, Ill., Public Schools

The Peoria, Ill., public school system has begun a new method of purchasing coal for the 1956–57 heating season.

It is on a flat-sum basis but predicated upon the number of degree days during the year. That is, the contractor agrees to supply the coal necessary to heat all of Peoria's 29 school buildings at a contracted price of a certain number of dollars. If the degree days vary from the specified total by more than 100 days either above or below this amount, the bid price will be adjusted by the percentage of the increase or decrease.

It would be well to discuss the manner by which bids are taken. Bids are taken in three ways — on a per-ton basis, a lump-sum basis, and on a degree-day basis. Under the proposal to furnish coal by the ton, the contractor agrees to supply the three kinds of soft coal used (egg, screenings, and stoker) at so much per ton. This method has not been used for a number of years in Peoria because of the following problems:

First, the trucks have to be weighed. The city of Peoria had public scales at one time but their use has been discontinued. An independent company that owns scales of sufficient capacity would have to be employed to do the weighing. Since our schools are scattered over the district, coal suppliers were not too anxious to supply coal by this method because of the inconvenience of weighing.

Second, weighing to be done properly should have the empty truck weighed both before and after loading, particularly when icing conditions prevail. Again this would be inconvenient.

Third, the matter of the B.T.U. content becomes most important since the heating quality of each ton is of dollar value to the user. Under a lump-sum bid, as under a degree-day bid, the B.T.U. content is of more concern to the supplier since he will want to supply as few tons as possible to provide the necessary heating.

Fourth, the ash content is more important on a per-ton bid since it is of no advantage to buy coal with a high ash content. It might be said that this would mean nothing to a supplier either but, if he is buying his coal as most coal merchants do, then he is also paying for the ash in original cost and in hauling charges. Ash content becomes important to us for another reason and that is because we have found it best to haul away our own ashes rather than contract for this work.

Fifth, the board of education deemed it advisable to take samplings of all coal delivered at each delivery point and then run chemical tests on them to determine the B.T.U. and the ash content. Even though this was done by one of our chemistry teachers, it was a rather costly program.

Degree-Day Proposal

The lump-sum method was adopted several years ago even though we took bids by the ton, also. As a whole this has proved very satisfactory.

Three years ago, we added a third proposal to our bid specifications for coal, which is the degree-day plan. The supplier bids a lump-sum cost but as previously stated, it is based upon the number of degree days in that particular year. Our specification is stated:

"The undersigned bidder, proposes to furnish the required amount of washed coal necessary to heat all of the buildings

(Concluded on page 78)

PROPOSALS AND SPECIFICATIONS FOR SUPPLYING WASHED COAL TO THE BOARD OF EDUCATION OF THE CITY OF PEORIA, ILLINOIS FOR THE SCHOOL YEAR 1956-1957.

(1) For and in consideration of the following terms and specifications, we, the undersigned, propose to furnish washed coal, in the quantity required in and during the 1956-1957 school year for and to the various buildings used and specified by the Board of Education of the City of Peoria, all situated in School District No. 150, at the prices shown, and hereby bind ourselves to the faithful performance of this contract.

(2) KIND, QUALITY AND TYPE OF COAL NEEDED: All coal is to be washed. It shall be free from rock, dirt, excess sulphur and/or other impurities. Samples shall be as prescribed by the A.S.M.E.

The washed coal which the undersigned proposes to furnish shall show an average analysis of not less than 10,500 B.t.u.'s per pound on an "as received" basis at any of the Board of Education buildings. The ash content shall not exceed 10%.

It is further stipulated and agreed that in case any of the types of washed coal delivered by the undersigned shows an analysis of less than ninety-five (95) per cent of the 10,500 B. t. u.'s specified, then and in that case it is hereby agreed as a part of this contract that the contract price of all such types of washed coal shall be reduced by the same percentage as the B.t.u.'s of the washed coal delivered below the 10,500 B. t. u.'s specified. Samples shall be as prescribed by the A.S.M.E.

Coal to be supplied by the contractor shall be of the following types:

Egg Coal - Egg coal is that coal that has passed through an eight (8) inch screen and over a four (4) inch screen. It shall be thoroughly washed and freed of all impurities.

Stoker Coal - Stoker coal is that coal that has passed through a one and one-quarter (1¼) inch screen and over a one-fourth (1/4) inch screen. It shall be thoroughly washed and freed of all impurities.

Screenings - Screenings is that coal that has passed through a one and one-quarter (1¼) inch round hole. It shall be thoroughly washed and dried. It shall contain approximately 35% 1¼" x 3/4" - 35% 3/4" x 1/4" and 30% 1/4" x 28 mesh.

(3) MINE/MINES: The coal which the undersigned proposes to furnish shall come from

_____ which is now operated by

_____ Coal Company, and which is located in

_____ County, _____ Township, Illinois.

(4) WEIGHING: Each load shall be weighed over a scale bearing the inspection sticker of the State of Illinois, Department of Agriculture, Division of Foods, Dairies and Standards. The Board reserves the right to spot-check occasionally at their discretion.

A sample page of Peoria's coal purchasing specifications

THE AMERICAN
School Board Journal

An Independent Periodical of School Administration
William C. Bruce, *Editor*

CONCERN FOR THE EXECUTIVE

THAT the concern of big business corporations for their chief executives has been increasing in recent years has been evidenced in the growing use of scientific studies of executive-staff organization and the redistribution of labors and responsibilities among ranking department heads, technical aids, and upper staff members. It is becoming a common practice to advance the president to "chairman of the board" and to make provision for liberal retirement annuities.

In contrast, boards of education have done very little for their chief executives. We have heard of only a few school boards that insist on an annual physical examination for their superintendent of schools. The required vacations of superintendents are at best sketchy. It is a common fact that most superintendents work harder at the close of the school year and during the summer vacation than they do during the school year. We have never heard of a board of education that has as a policy insisted that its president or its members take over some of the terrific public pressures which come from all sides and which shorten both the term of office and the life of many school executives.

The desirability of old age pensions for superintendents which are fully in keeping with the importance of the work done by these men deserves exploration. Lightening of the load in keeping with the length of service also needs consideration.

This whole matter of the personal welfare of the school executive deserves study by boards of education. The outcome, while it may be momentarily of value to the individuals concerned, will ultimately be of greater value to the people under whom the executives work and to the children for whom they are devoting their lives.

PERMANENCE OF SCHOOL BUILDINGS

PREVIOUS to World War I there was strong sentiment for greater permanence of school buildings. It was argued that the safety of pupils and teachers demanded the use of fully fire-safe materials, and buildings were designed and constructed of heavy materials which would make them last indefinitely. There was strong opposition to the use of wood and to lighter forms of wall, floor, and roof construction. Especially prefabricated structures and portable buildings were frowned upon because they were intended to be temporary, when as a fact there was a strong inclination to use them as long as one or more decades.

At present there is little or no argument on this point. The use of glass, asbestos, plastics, light metals, and other reasonably long-lasting materials of construction have so revolutionized the school buildings that little consideration is given to the element of century-long permanence. In one-story structures light materials lead steadily over concrete and heavy materials because they permit better lighting, greater flexibility, and adjustment to school needs.

If the element of educational usefulness of school buildings is considered as important as the longevity of the structures, then the newer buildings show genuine architectural wisdom and economy. The newer schools will outlast their true usefulness in spite of the use of lighter materials.

SCHOOL BUS OPERATION

THE private operation of school buses is declared to be more efficient and economical than operation by the school districts, in the opinion of Clarence Geiger, president of the New York State School Bus (private) Operator's Association. Mr. Geiger holds, in an article in a trade paper, that under private operation, transportation costs are known at the start of the school year, while true costs of public operation are often lost in the school accounting. Further, high standards of operation and tight controls are easier, he says, with private operation, since service is the most important thing the owner-operator has to offer.

It is regrettable that not more state-wide or regional studies on school bus operating costs are available to local school boards with the complete information needed to make comparative judgments on the total situation. Studies of state-wide or even broader area studies have statistical value and provide a basis of judgment. They are helpful for any board of education which is studying its local situation and which seeks a conclusion based on well-considered facts and educational objectives.

The economic aspect of school bus transportation is unquestionably important, but there are also other considerations which cannot be forgotten. It is quite possible that some of these educational and social considerations may overshadow limited economic savings. It is certainly true that the character of the bus drivers be controlled by the school authorities, and that the entire educational values of bus transportation which derive from sound discipline and a wholesome atmosphere are of such importance that they cannot be overlooked.

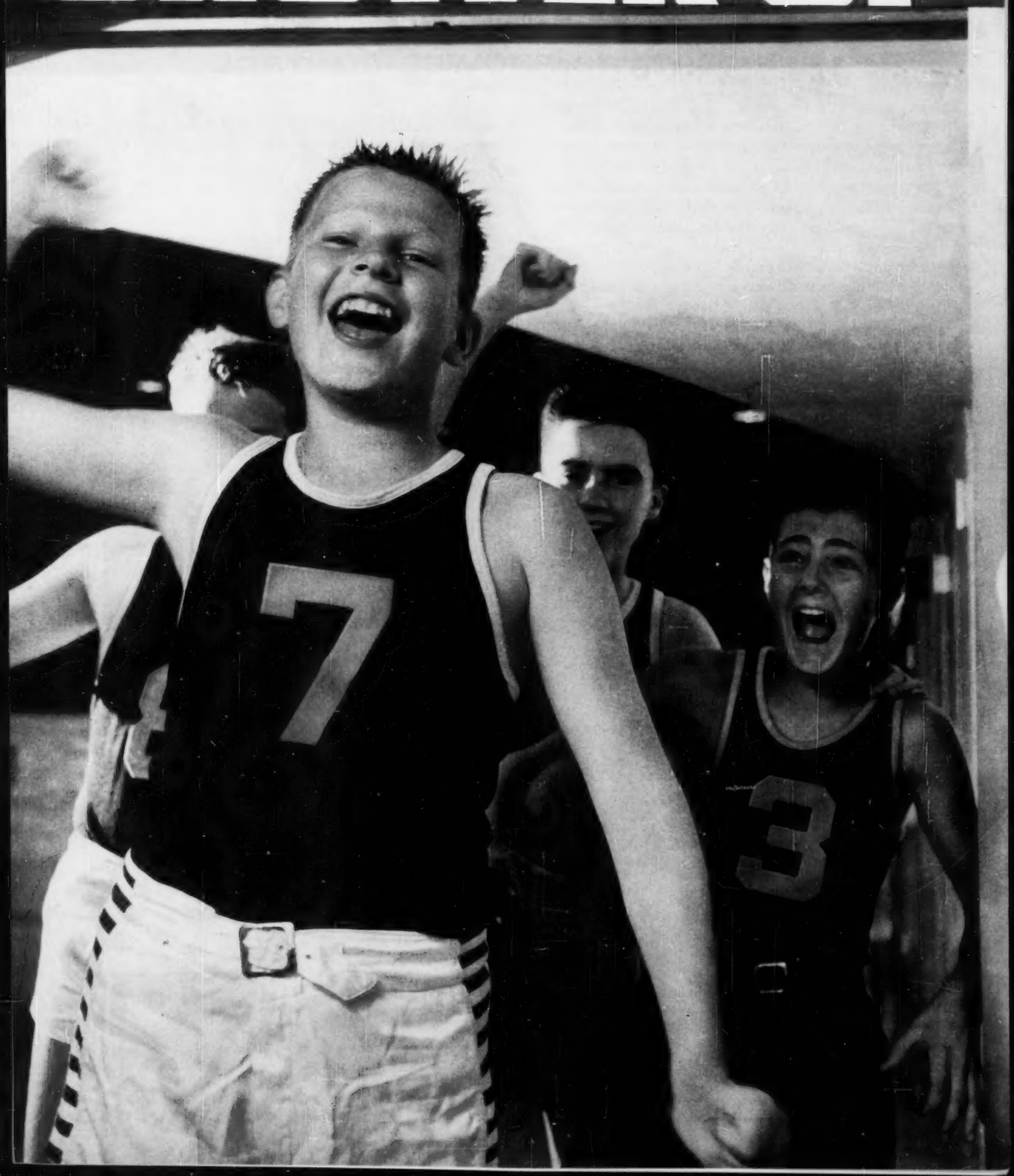
DESEGREGATION IN 1956

REPORTS from the South indicate that desegregation of schools is progressing as promptly as might be expected. In spite of the fact that newspapers and news magazines are reporting troubles in a number of communities, the work in large numbers of school districts is moving forward in a gratifying manner.

The experience of 1955 and 1956 indicates that integration involves many serious problems and that progress can be made only if the local situation is considered and if advances are made slowly and in keeping with the conditions that can be coped with. There is some wisdom in many communities to delay integration for a year and to restudy the situation again a year hence in the light of developments. A deeply ingrained social institution cannot be changed by a mere court order. It has taken centuries to eliminate slavery. It may take a decade to completely eliminate racial segregation in the United States.

Dr. David Weglein, late superintendent of schools in Baltimore, Md., is reported to have made the statement that only two items of business should come before the meeting of a board of education. First, should the board fire the superintendent? And second, if the superintendent is not to be fired, how should the board support him in his work and recommendations?

SHOWER-UP



...and you can make sure

SPECIFY POWERS HYDROGUARD®
THERMOSTATIC SHOWER CONTROL

Only with an individual *thermostatic* control for each shower can you be certain that there will be no fluctuation of water temperature . . . no danger of sudden shots of hot or cold water to cause discomfort, scalding, or possible injury in your school shower room. Such complete protection cannot be provided by old fashioned two-handle valves, single-handle valves, or even pressure-equalizing valves. Hydroguard *thermostatically* compensates for temperature or pressure changes in either hot or cold lines.

By turning one dial each student can shower at the temperature he likes best. Because of a built-in safety limit, Hydroguard cannot deliver water hot enough to scald . . . even if the dial is turned all the way to "hot." If the cold water supply fails, it shuts off the hot water instantly, automatically.

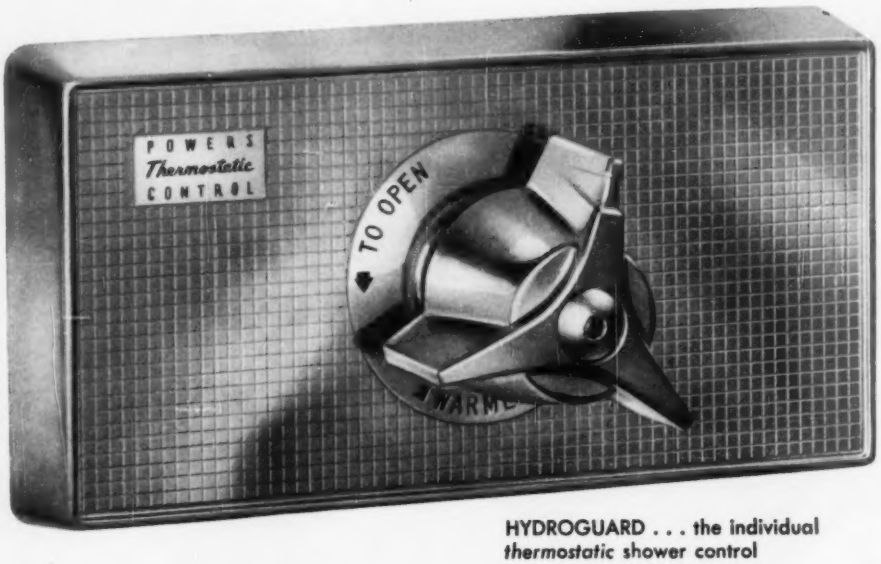
Hydroguard saves hot water, too, because there is no need to "juggle" hot and cold valves to obtain and maintain the desired temperature.

Attractive, modern styling and simple design allow uncluttered appearance and easier installation. Only one control on the wall, simplifying piping and tile work.

Specify Hydroguard *thermostatic* shower controls for your new school shower room, dormitory, gymnasium, or swimming pool – then you'll know that safety and comfort have been provided.

THE POWERS REGULATOR COMPANY
Skokie 3, Illinois

Complete information on the Hydroguard is available in our new booklet, "Safer Showers." Write for your copy today.

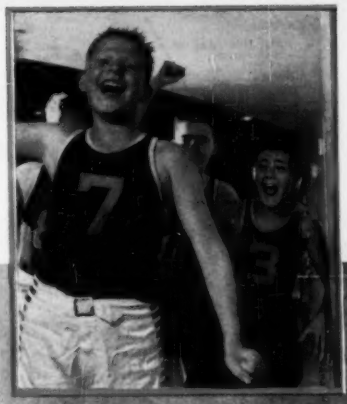


HYDROGUARD . . . the individual *thermostatic* shower control

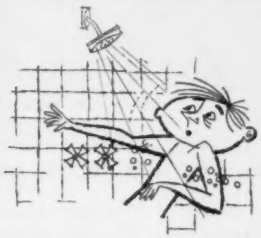
POW

SPECIALISTS IN THERMOSTATIC

it's a safe shower!



GUARD AGAINST THESE COMMON SHOWER ROOM DANGERS . . . WITH *HYDROGUARD*



Sudden change in shower temperature may cause student to jump, slip, fall. Hot water "horse play" also causes many painful and dangerous accidents. In addition, hot water lines in large buildings often carry temperatures high enough to scald!

Freeport (Ill.) High School is one of the many schools that have chosen Hydroguards.

Childs and Smith, Chicago, Architects and Engineers

E R S

CONTROL . . . . SINCE 1891

National Council on Schoolhouse Construction

33rd Annual Session Studies Guide Revision

Critical reviews of a great mass of materials for the revised 1957 edition of the *School Plant Planning Guide* provided the core subject matter for the 33rd annual convention of the National Council on Schoolhouse Construction, held in the Willard Hotel, Washington, D. C., October 2 to 5, 1956. More than 150 members of the Council participated in seven working groups which discussed reports prepared in advance by special committees charged in 1955 to work out the exact recommendations for additions, revisions, and elisions of the basic principles of planning, procedures, standards, and other details of school plants which have made the earlier editions of the *Guide* the most important and dependable statement of school plant provisions in the United States. The new edition of the *Guide* will synthesize the best recent experience and the new thought in the philosophy, the current trends, and the accepted practices in public school plant planning and construction. It is expected to raise the Council's professional work to new levels of helpfulness and dependability.

The members of the Schoolhousing Division of the U. S. Office of Education acted as hosts of the Council and managed the local arrangements with delightful efficiency and completeness. The Council enjoyed four tours to newly completed school plants in the District of Columbia, Prince Georges County, Md., and Montgomery and Arlington Counties, Va. Dr. W. W. Theisen presided over the general and business sessions expeditiously and happily.

Keynote Address

The entire school plant situation and the complicated problems in need of solution were ably presented to the Council in the opening address of the convention, by Dr. Wayne Reed, of the U. S. Office of Education. The three original purposes of the Council, which still motivate its activities were recalled by Dr. Reed:

"1. To promote the establishment of reasonable standards for school buildings and equipment with due regard for economy of expenditures, dignity of design, utility of space, healthful conditions, and safety of human life;

"2. To combat wastefulness, poor planning, questionable equipment, and other undesirable factors whereby the best interests of the children are not served;

"3. To disseminate such information with regard to school buildings as may be valuable to the public and to school officials."

Dr. Reed declared that the Office of Education recognizes the fact that the Council, since its organization, has provided leadership in the study of and the improvement in schoolhouse planning and construction. The Office, he said, commends that leadership. Members of its staff have worked to help and promote the Council's work in an important way.

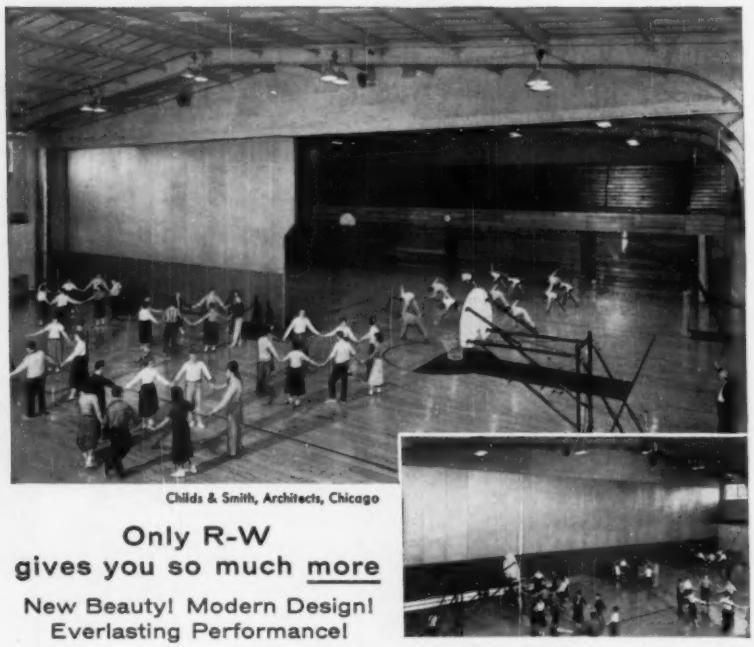
The school plant, the speaker held, is more than an educational tool. It provides wholesome environment conducive to the pupil's learning and growth. It is a school home for the pupils where they may develop good patterns and ideals of living conditions, convenience, and comfort.

The shortage of school buildings, as observed by Dr. Reed, is due to (*a*) the failure to erect schoolhouses during the 1920's; (*b*) the inability of school districts to finance construction in the depression 1930's; (*c*) the war conditions in the 1940's; (*d*) the boom in babies in the 1950's — all these things have added up to the present terrific backlog of shortages. (1) It is predicted that the increase in enrollment between 1950 and 1960 will be 12 million children in public elementary and

(Continued on page 66)

Another first by R-W!

New "FoldeR-Way®" Aluminum Partitions



Childs & Smith, Architects, Chicago

Only R-W gives you so much more

New Beauty! Modern Design! Everlasting Performance!

★ **No painting expense**—ever! Each section made of smooth, flush, durable aluminum.

★ **Lightweight!** 3" thick partition sections weigh 50% less than conventional designs.

★ **Scientifically engineered!** Honeycomb internal construction provides maximum strength, minimum weight and minimum sound transfer.

★ **Dimensional stability!** Not affected by humidity or temperature changes.

★ **Fully automatic electric operation!** Key switch control does it all.

For details and specifications, write for FREE catalogs today

This R-W "*FoldeR-Way*" aluminum partition installed in West Senior High School at Aurora, Illinois, is the first aluminum gymnasium folding partition ever installed *anywhere!* Electrically operated and fully automatic, a turn of the switch key does everything.

Richards-Wilcox Manufacturing Company
School Equipment Division

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SLIDING DOOR HANGERS & TRACK • ELECTRIC DOOR OPERATORS • FIRE DOORS & FIXTURES • INDUSTRIAL DOORS & EQUIPMENT • INDUSTRIAL CONVEYORS & CRANES SCHOOL WARDROBES & PARTITIONS

Movable Cabinets by Brunswick
Make OLD Classrooms NEW!

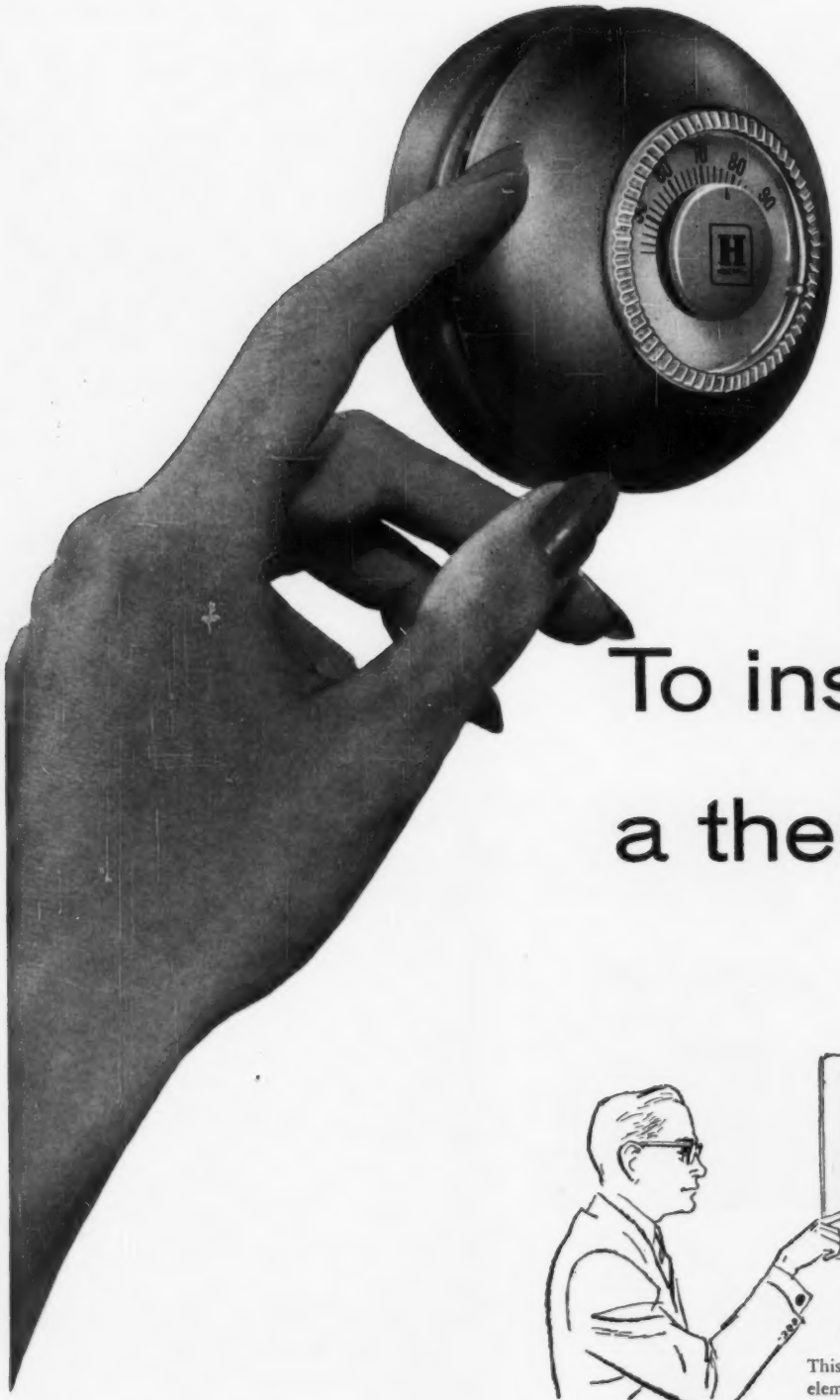
before and after!

Let's face facts. A new school need not *always* be the answer to an old school's limited space problems. Brunswick cabinets provide you with the perfect solution to low-cost modernization.

More and more Brunswick classroom furniture and cabinets are being purchased for this purpose. There are ample reasons. First, you can modernize one room at a time . . . when funds are available. Brunswick cabinets are factory-built . . . eliminate costly on-the-job construction. They are color-coordinated to suit any surroundings. And they are flexible . . . easily adapted to changing needs.

If low-cost modernization interests you, write: The Brunswick-Balke-Collender Company, 623 S. Wabash Ave., Chicago 5, Illinois.

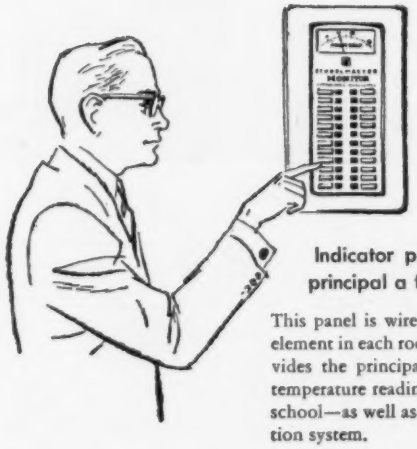
JUST ONE LINE CONTINUES TO SET THE PACE . . . IT'S **Brunswick**



Pneumatic Round Thermostat. One in each classroom makes it possible to adjust temperature to meet varied activities of children.

To insure the ri

a thermostat in



Indicator panel gives the principal a fingertip report

This panel is wired to a special sensing element in each room thermostat. It provides the principal with a push-button temperature reading for any room in the school—as well as an auxiliary fire detection system.

Wall thermostat in each room prevents stuffiness that makes students sleepy when blinds are drawn for audio-visual instruction. This results in increased alertness and receptiveness.

Wall thermostat in each room maintains right temperature for all types of classroom activities. Temperature may be lowered during exercise period, raised again for quiet study hour.

right "climate for learning"– in each classroom

Honeywell's new Schoolmaster system increases the child's "take home learning."

EFFECTIVE teaching calls for proper temperature and ventilation. Anyone who's ever tried to teach sluggish students in a stuffy classroom knows how important those factors are. But how can you control these conditions?

The best way is with mechanical ventilation and a thermostat on the wall of each room. Such "climate conditioning" is the idea behind the Honeywell Schoolmaster Temperature Control System. Individual room thermostats allow the teacher to maintain the right conditions for classroom alertness—at all times of the day regardless of instruction methods.

In addition, the Schoolmaster System includes an indicator panel for the principal's office which gives a fingertip report on all room temperatures.

The Schoolmaster is an exclusive Honeywell development, designed for any school—new or old. No major building alterations are necessary, as the wiring is simple.

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MINNEAPOLIS **Honeywell**

112 OFFICES ACROSS THE NATION

School Temperature Controls

N.C.S.C. REPORT

(Continued from page 62)

secondary schools. Of these, four million yet to come in the next three years are keeping up the pressure for new classrooms. (2) Changing curricula offerings and new subject matter requirements make necessary new and different types of school plant facilities. (3) Changing teaching methods require different space and service facilities. (4) School district reorganization providing for different groupings of pupils also adds to the total building load. (5) School organization changes, such as grade placement, and the introduction of neighborhood units to provide dynamic and adaptable programs are factors in plant needs. (6) Extensions of school programs to include pre-school and post-school areas require new facilities. (7) Pupils now remain in school longer and desire specialized training. This adds to the load. (8) Last, but not least, is the mobility of people. Today people move more readily and so frequently that it is almost impossible to predict in advance where schools will be needed. One great demand is for school-housing to meet pupil concentrations in new population centers. Coupled with normal replacements due to obsolescence, the needs would be large even without the enrollment increases.

The National School Facilities Survey showed that the five years' need for schoolhouses from 1954 to 1959 was 476,900 new classrooms and facilities. The best estimates show 127,000 rooms were built in the first two years of the period. We must build 111,500 classrooms each year of the next three years, or about 75 per cent more than we ever built in our history. Our methods of capital finance are *not* adequate. Old methods do not suffice, and we must look for other sources of capital outlay funds.

The U. S. Office of Education is helping: (1) the long-range planning by exchanges of information; (2) educational planning by staff co-operation; (3) helping develop new furniture and equipment specifications; (4) advising in administration of plant planning; (5) providing information on school plant operation and maintenance; (6) studying school plant technology.

The National Council should especially explore areas of plant maintenance, school plant technology, costs and economy analyses, etc.

"The problem of providing adequate school plant facilities," Dr. Reed concluded, "presents a stimulating challenge which will require the combined efforts of professional educators and lay citizens at the local, state, and federal levels." Widespread emotional involvement of citizens is an essential ingredient before such a great challenge is met.

The Work Conferences

The serious business of the convention was done in six committees which sat during three half-days as working groups. In each case the committee had prepared a complete outline of proposed changes for the 1957 edition of the *Guide*. The materials were presented in more fully complete form than will be possible to publish in the *Guide* and will be printed as special brochures.

I. *Rehabilitation, Renovation, and Modernization of School Plants.* Dr. Eugene S. Lawler, Tallahassee, Fla., reported to the convention that this group had outlined eight principles for dealing with problems of the remodeling or demolition of obsolescent school plants. The primary consideration in any situation is the need of providing the children with school opportunities fully equal to those afforded in new buildings.

II. *School Furniture and Built-in Equipment.* Fred Hill, Minneapolis, who spoke for this group, asked that a permanent committee be appointed to make a continuous study of criteria, and desirable principles of selection. The school authorities should specify and buy movable furniture; the architect should assume the responsibility for planning and letting contracts for built-in equipment.

III. *Safety Considerations.* As spokesman for the group, George D. Engelhardt, Jefferson City, Mo., outlined changes needed in the *Guide*. The new self-contained type of classroom and changes in school organization will require modifications in safety provisions. Corridors, for example, may be cut from 8 ft. 6 in., to 7 feet width. The local requirements for Civil Defense, while impossible in some details, must be taken into account in erecting city school plants.

IV. *Elementary School Plants.* This group, for whom Dr. J. L. Taylor, of the U. S. Office of Education reported, has prepared a complete statement on the planning of elementary schools with emphasis on the educational planning, current practices and trends in general plans, characteristics of elements (rooms, etc.), environmental controls, long-range and functional planning. A pamphlet will be issued.

V. *Secondary School Plants.* The group outlined a statement for a pamphlet in which (1) the general problem will be outlined; (2) the desirable planning processes will be suggested; (3) a new approach to secondary education will be suggested for educational planning purposes; (4) the general nature of a forward-looking school plant will be described; (5) new suggested standards for general and service facilities will be set up. Wm. F. Clapp reported that the brochure will be ready shortly.

VI. *School Sites.* Some 18 specific recommendations were made by this group. Prof. Donald Leu, East Lansing, Mich., reporting.

(Concluded on page 74)

. . . easier reading
. . . writing
. . . cleaning

WRITE FOR YOUR FREE COPY OF:

"SLATE CHALKBOARDS IN MODERN SCHOOLS"
(contains little-known facts about chalkboard visibility, geographical listing of outstanding modern schools using slate chalkboards, cost comparisons, maintenance tips and authoritative bibliography)

"THINGS THAT MATTER MOST ABOUT CHALKBOARDS"
(discusses six basic considerations in chalkboard selection)

"TIPS ON EASY CHALKBOARD CARE"
(nine time-saving steps for trouble-free chalkboard care, including the scouring technique to eliminate need for future resurfacing)

Nothing equals the ease of teacher-student communication like the superior contrast of white chalk on a natural slate board. Nor have the clean, clear writing and erasing qualities or easy maintenance of slate ever been duplicated. In fact, the unsurpassed smoothness of slate is the standard to which all other chalkboards are compared. Ageless in appearance, slate harmonizes with any color scheme, never "dates" the classroom. No wonder so many teachers request . . . so many architects specify natural slate chalkboards for the best in visual classroom service!

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500 million years in the making . . . NATURAL SLATE

Now POWERIZED ROLL-A-WAY* BLEACHERS

Universal's new mobile Poweroller* enables one man to do all opening and closing of 10, 15, 20 or more rows

No physical effort for custodian; Poweroller* handles all operations at touch of switch

No longer need the operation of folding gymnasium bleachers be a problem involving slow, inaccurate efforts of two, three or four men per section. Now, with *Universal's* new *Poweroller*, all Roll-A-Way Bleachers can be operated by one man who opens or closes any section (10, 15, 20 or more rows) in a few seconds... all sections of the gymnasium in just a few minutes... accurately and safely.

Poweroller is a compact mobile electric power unit with 100-foot detachable cord which may be plugged into any 100-V AC 60-cycle outlet. To operate, just direct the extended gripper arm into the small opening under the front row seat. This engages an attachment bar under the bleacher section. A slight touch of the handle switch starts action... and you have complete control of the bleacher movement. Pneumatic tires protect the gym floor, yet give *Poweroller* enough traction for positive, easy opening or closing of the bleachers. The operator does nothing but guide the unit from section to section and direct its action. Bleachers may also be opened or closed by hand if ever desired.

Here is gymnasium seating at its best. *Poweroller* not only speeds up operation, but does a more careful job. The gripper arm can make contact at only one spot, the exact center of a section... and the attachment bar assures an even push or pull over the entire area. *Safe, accurate operation is guaranteed!* Powerization is available for all new Roll-A-Way installations immediately... and the extra cost is so small that it never needs to be a determining factor. If you are planning a gymnasium, investigate today.

★ T. M. Reg. * T. M. Reg.—Pat. Pend.

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your first consideration is . . .

Safety!

WHEN MODERNIZING SCHOOL STAIRWAYS

BEAUTY

LOW COST

DURABILITY

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Armor-Treds

give you all these features plus the extra wear and sound deadening properties of live rubber construction and a brilliant selection of six distinctive marbleized colors and plain black.

Armor-Tile for landings is available in matching colors to round out a pleasing decorative scheme. These treads are designed not only to modernize the appearance of wooden, masonry, or slippery steel stairways, but also to offer non-slip safety protection at a minimum of cost. Badly worn stairs can easily be restored with our latex leveling compound.

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PERSONAL NEWS

DR. SMITH PASSES

Dr. Samuel Leonard Smith, 81, provost emeritus of George Peabody College for Teachers, Nashville, Tenn., died suddenly September 9, following a collapse while attending church services. He had retired in 1947 from the office of provost and devoted his time during the past nine years to consulting service in connection with school problems in Southern communities.

Dr. Smith was a native of Tennessee and began his career as a rural school teacher. He was successively principal, supervisor, superintendent, and for many years director of the Southern States Office of the Julius Rosenwald Foundation. In the last mentioned capacity he directed the Interstate School Building Service and was responsible for the erection of 5358 school buildings for Negroes in the Southern States. He helped initiate and direct the work of the Southern rural library and bookmobile services.

Dr Smith's activities enabled 15 Southern States to establish divisions of schoolhouse planning in the State Departments of Education. He was directly responsible for the education of the men who initially filled the offices.

His kindly service endeared him to thousands of Southern schoolmen. He was for many years an honorary member of the National Council on Schoolhouse Construction.

★ The school board of Honesdale union school district, Honesdale, Pa., on August 18, gave a dinner in honor of retiring superintendent, HARRY F. MANBECK. A total of 34 persons were present at the dinner. Lester F. Burlein acted as toastmaster and gave a résumé of the accomplishments of Mr. Manbeck during his service of 34 years. President Wyman Fowler of the board presented Mr. Manbeck with a gift.

★ GORDON O. MERKEL has been elected superintendent of schools at Ludlow, Ky.

★ MARVIN L. BERGE has taken the superintendency of unit school dist. No. 428, DeKalb, Ill.

★ J. C. MCCLESKY is the new superintendent at Chillicothe, Tex.

★ DALE E. BROCK has succeeded H. E. Binford as superintendent of the Bloomington Metropolitan Schools, Bloomington Ind.

★ M. P. SMITH has taken the superintendency at Winona, Minn.

J. WILBUR WOLF DIES

J. Wilbur Wolf, president of the Association of School Business Officials, died at his home in Omaha, on Sept. 29, following a heart attack.

Mr. Wolf, a native of Omaha, Neb., was graduated from the University of Nebraska in 1923. He was made business manager of the Omaha schools in 1936, after 13 years in a commercial position. In 1936 he joined the Association of School Business Officials. He was on duty as business manager of the Omaha schools at the time of his death.

The Association deeply regrets the loss of such a fine leader from the field of school business management.

MR. PARMENTER RETIRES

The National School Service Institute of Chicago (National School Supply Association) has lost the services of Mr. Lew Parmenter, senior counsel, who has retired after 30 years of service with the organization. Before coming to Chicago Mr. Parmenter was a member of the firm of Bacon and Vincent, Buffalo, distributors of school supplies. The Institute has not appointed a successor. It is expected that Mr. Parmenter will be made an honorary life member.

NEA APPOINTS LAMBERT

Sam M. Lambert

Sam M. Lambert is the new director of the Research Division of the National Education Association, succeeding Frank W. Hubbard. Dr. Lambert has been with the NEA since 1950, serving the association as assistant director and later associate director of its research division.

He is a native of West Virginia and received his bachelor's and master's degrees from West Virginia University. He served as state supervisor of school transportation and later as supervisor of school planning with the West Virginia State Department of Education.

head of the class.

Arlington

for anywhere in the classroom you can always count on Arlington for seating equipment at its best

Engineered to meet every requirement of the modern classroom, the No. 552 Move About is built to withstand hard wear and to be surprisingly free of maintenance problems year after year. Features include: adjustable desk top . . . safe, slam-control friction hinges, spacious book compartment, and noiseless 90° swivel seats. Sizes for all age groups. Also available in study top model.

Send for free Catalog No. 56 . . . complete information about Arlington seating equipment for every classroom need.

ARLINGTON SEATING CO.

Arlington Heights, Illinois

. . . a dependable source of quality seating equipment for over 50 years

you'll be glad you chose Griggs

Five . . . ten . . . fifteen years from now, you'll be happy that you selected Griggs modern school seating. It's designed to fit into classrooms of today and tomorrow . . . it's constructed to withstand the wear and tear of daily use and student abuse. And every year Griggs seating is in your school, your students will find it's made for *comfort*.

Handsome, new Griggs Skyliner Chair Desk — No. 450, a graceful and *practical* school seat.

Griggs Push-Back Auditorium Chair—the finest made for theaters or schools.

Airliner No. 700 Desk with No. 740 Chair. Tough, lightweight tubular seating.

New Airliner No. 780-A. Study Top Desk. Sturdy tubular frame and wide work space.

Write for new, complete, Griggs Seating catalog

GRIGGS Equipment, Inc., Belton, Texas

MANUFACTURERS OF SCHOOL, CHURCH, AND THEATRE SEATING

CLARIN DUAL PURPOSE MUSIC ROOM CHAIRS

ADD A ROOM TO

BAND PRACTICE

CLARIN *FOLDING* MUSIC CHAIRS WITH THE TABLET ARM FOLDED DOWN AND OUT OF THE WAY.

All photographs—The Music Room
Donegal High School—Mount Joy, Penna.

Now music teachers can teach theory in the band practice room with the use of CLARIN dual purpose tablet arm music chairs. Students with instruments have complete freedom of arm movement for practice as the tablet arm folds completely down, out of the way. With the tablet arm up, a wide desk area is made available at just the right height for regular class use. You can add a complete classroom to your school for just slightly more than the cost of ordinary folding chairs. Write for complete, colorful catalog.

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QUALITY IS THE ONLY TRUE ECONOMY...AND Clarin SINCE 1925 QUALITY

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CLARIN FOLDING MUSIC CHAIRS WITH TABLET ARM LOCKED IN UP POSITION FOR ACADEMIC WORK. MUSIC STUDY

Tablet arm raised for composition.

Position of tablet arm for band practice.

The CLARIN *Folding* Tablet-Arm Chair is an amazing mechanical accomplishment. A special, patented design allows the tablet arm to be locked in the up, or desk, position or simply, quickly swung down, completely out of the way. This means that not only can all band work be done in one room, but also that choral groups may perform class work and then practice rising as a group without hinderance. Versatility is easily obtained as chairs are readily moveable and can be completely folded to a 3" thickness when required.

TEN YEAR GUARANTEE STAMPED IN STEEL

With complete confidence in the inherent quality of *Clarin* chairs, plus our 30 years of specialized product "know how", we take pride in issuing an unrivalled *10-year Guarantee* with every chair sold. The tangible sign of long-term economy is the date stamped in one leg of each *Clarin* chair. It is permanent assurance to all that you purchased the best.

SETS NEW STANDARDS FOR SEATING

NEW BOOKS

Professional Problems of Teachers

By Albert J. Huggett and T. M. Stinnett. Cloth, 468 pp., $5.25. The Macmillan Co., New York 11, N. Y.

This book discusses at length the professional situation of teaching in the United States and outlines attitudes which teachers should take in their occupational relations with boards of education, the administrative heads of school systems, their fellow teachers, and the general public. Part I defines teaching as a profession and indicates how the novice can find a job and advance himself professionally. Part II takes up the personnel practices of school systems, with emphasis on salary schedules, rating and promotions, the continuing contract, and acceptable working conditions. Part III suggests how the teacher by accepting a well-balanced series of ethical principles, can advance herself in her service to her pupils, and in the estimation of the community. Part IV takes up the professional safeguarding of teaching in the United States, with heavy emphasis on the National Education Association and its numerous divisions.

It is natural that the book, since its junior author is an executive of the NEA, should strongly reflect the viewpoints and the present policies of that organization. Boards of education will find the book a complete and fair presentation of widely accepted attitudes, policies, and ambitions for teaching as a professional occupation. The book was written in 1954 and 1955 and some of the data on salaries and incomes and school costs are rapidly becoming obsolete.

Handbook of Policies and Procedures in Lamar, Colorado

Paper, 31 pp. Published by the board of education, Lamar, Colo.

This handbook, prepared as a co-operative project by the boards of education and staff of School Dist. 14 and Union High 2, is divided into four sections. Section I contains an outline of the school organization and an administrative chart; Section II offers the administrative practices in instruction; Section III contains the general policies and regulations relating to certified personnel; and Section IV is devoted to miscellaneous provisions, including use of buildings, tuition, textbooks, recreation, care of school property, pupil accounting, and accident insurance.

School Superintendent in Action in Five Cities

By Frank E. Spaulding. Cloth, 699 pp., $6.50. Richard R. Smith Publisher, Inc., Topside, West Rindge, N. H.

This is a comprehensive account of the professional life and experiences of the author, who successfully occupied the superintendencies in Ware (Mass.), Passaic, Newton, Minneapolis, and Cleveland, between the years 1895 and 1920. The book is a record not only of great professional success and successful city school administration, but it reflects in a very personal way much of the contemporary theory and practice in city school systems.

Doctor Spaulding always maintained a high personal standard of integrity, and moved on to his final high position in Cleveland as a result of his previous achievements. Few superintendents indeed can tell the story of such a long and successful career. It is interesting to note that Dr. Spaulding never considered himself an expert whose opinions must be accepted simply because he expressed them. He always highly respected the boards of education and the lay leaders of the communities in which he worked.

Know Your Schools, Parma City, Ohio

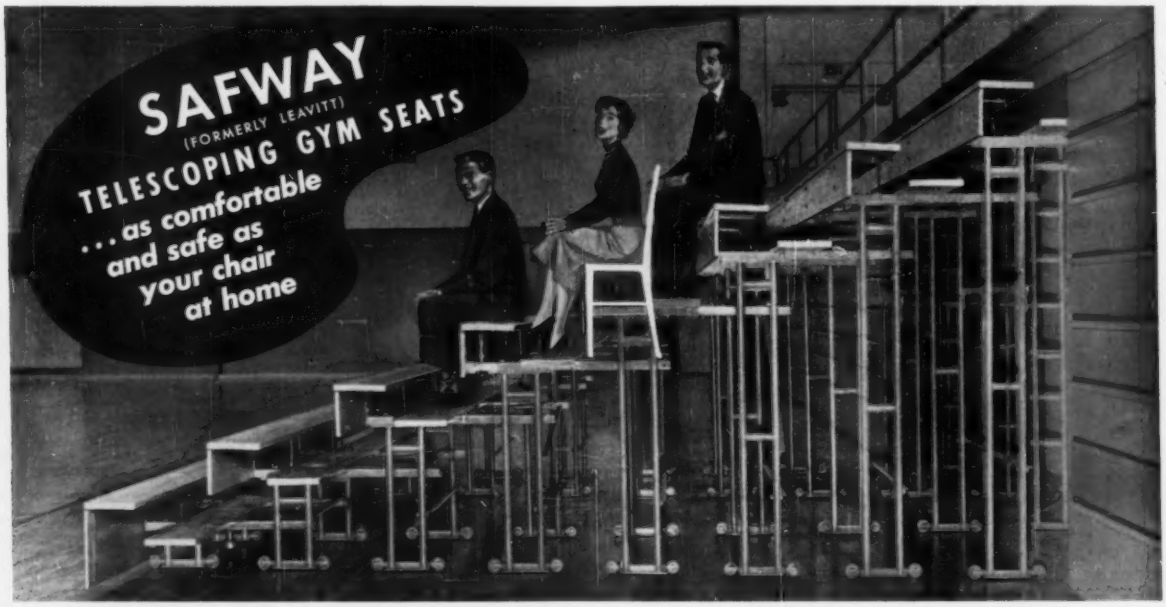
Published by the public schools of Parma, Ohio.

This booklet, compiled for the taxpayers of the school district of Parma City, offers a compact summary of the operation of the school system.

Citizens at Work

By O. E. Hill. Paper, 26 pp., $1. Associated Public School Systems, 525 West 120th St., New York 27, N. Y.

In this publication, the author makes an analysis of the theory underlying lay participation and lay group work in local community schools. He describes the Cleveland Heights, Ohio, plan in which a member of the board is chairman of each lay committee, and a representative of the superintendent's office participates in all meetings. Activities of the lay finance committee are emphasized and charts indicate the budgetary implications involved in the various projects.



SEAT YOUR SPECTATORS in complete comfort ... and complete safety ... with Safway Telescoping Gym Seats!

These stands are designed to fit real people. Chair-high seats allow spectators to sit in a natural, relaxed, untiring posture. Ample leg room eliminates "knee-in-the-back" crowding. And your view is not blocked by average size persons in the row ahead.

Many spectator safeguards are engineered into the improved Safway design. Premature closing is made impossible by a positive safety lock which operates automatically as each row of seats is drawn out. The rigid steel understructure with cross bracing is completely self-supporting. Seats are easy to enter and leave—there is no steep climbing.

When the game is over, your telescoping gym seats quickly nest against the wall to clear the floor for daily gymnasium activities. Vertical skirt boards line up flush to form a handsome cabinet without projections. Floors are unmarred and perfect.

Safway Telescoping Gym Seats permit 'round-the-clock gymnasium use ... for daily classes, spectator events and social affairs. Find out how you, too, can use your gym full-time ...

Write for Bulletin 1611 — ask about our gym seats in your area.

Other Safway Advantages

- **COMPACT**—15 rows telescope into a space only 3 ft. deep. Gym seats form a completely enclosed cabinet when nested.
- **EASILY OPENED**—Ball bearing wheels at floor level and under seat supports insure effortless operation.
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- **PROTECTS FLOORS**—Non-marking rubber wheels travel in different paths under each seat support. Gym seats rest on flat floor plates when occupied.
- **VISIBILITY**—Rise-per-row of 9½ in. provides excellent visibility without steep climbing.
- **ADAPTABLE**—Easily installed in existing gymnasia or designed into new buildings.

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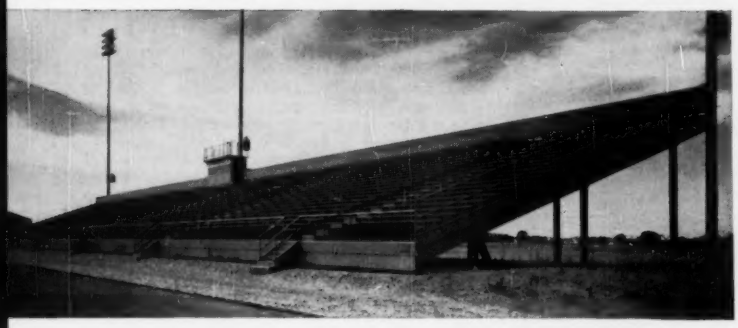

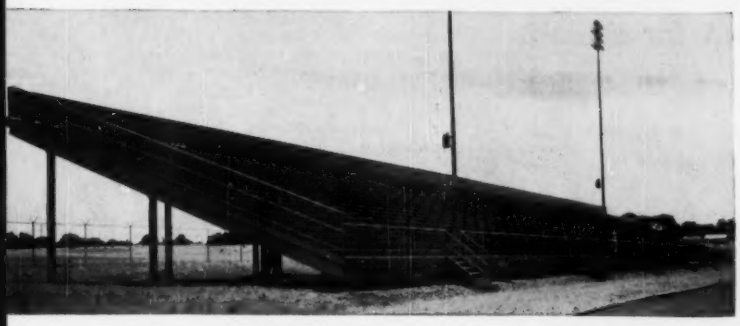

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Modern grandstand design, coupled with the strength and economy of engineered steel construction, create a lifetime asset in spectator accommodation for the Carlisle, Pa. School District. Pittsburgh-Des Moines Steel Grandstands are unit-section constructed, adaptable to every stadium requirement, and require only periodic paint maintenance for good-as-new service through the years. Write for our complete grandstand Catalog.

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N.C.S.C. REPORT

(Concluded from page 66)

The changes are intended positively to point out the fact that the school site is an integral part of the school plant and performs definite educational services. Entirely new considerations of safety and use are necessary to meet changes in program, the development of superhighways, urban redevelopment, and suburban expansion. The formula of size must be changed to embrace new needs for outdoor play, parking, and traffic safety.

VII. *Environmental Controls.* Dr. Charles Gibson, Los Angeles, Calif., pleaded for more time to complete the environmental section of the code, in order that recommendations for spatial, sonic, audio and visual situations may reflect the newest theory and the best practice. Careful balance of all environmental factors within local economic limitations is needed for good results.

VIII. *Service Facilities.* The group, headed by Dr. H. H. Linn and reported by Dr. Felix McCormick of Teachers College, Columbia University, New York City, has worked out a complete statement on heating and ventilating schools in cold and hot climates, sanitary facilities, audio-visual facilities, communication and program-signal facilities, custodial service areas, storage facilities, exterior lighting, bus loading, garage, and parking facilities.

It is expected that most of the pamphlets as planned will be ready in the spring.

At its general sessions and lunch programs the Council heard papers on topics of interest: "Conclusions from Recent School Lighting Studies" by Francis C. Darby and Charles Gibson; "Comparable Cost Figures" by John E. Marshall; "Heating Schools with Electricity" by George H. Bush; and a series of liaison reports.

New N.C.S.C. president is E. J. Braun, assistant superintendent of schools at Arlington, Va.

At a group meeting on publicity, the publication of a Council house organ was recommended. The Council went on record to study college plant planning with emphasis on junior colleges.

The Banquet

In the absence of Supt. Hobart M. Corning of the Washington, D. C., schools, Dr. Shirley Cooper, assistant secretary of the American Association of School Administrators, Washington, addressed the annual banquet on the subject of "What a Superintendent Wants to Know About School Buildings." In developing his argument that the superintendent looks at the school building as just one of the factors in the total job of running the schools, Dr. Cooper urged that the new buildings must be tied into every facet of the educational program. The schools are in a period of transition, which is one reason why school authorities are never ready to plan new schoolhouses for changes to come. There is need, he said, for considering the future use of mass media of instruction and for teaching the broader aspects of the old and present cultures in dramatic form. Greater skill is needed in the use of these mass media to more permanently impress the significant aspects of our culture on the new generation. Superintendents are strongly conscious of school building costs, and they need reliable advice on the over-all planning as well as on the shapes of classrooms, space for circulation, heating units. They need justifications for larger sites. They want help in numerous areas for planning better school buildings.

Officers for 1957

The Council elected the following officers for the year 1957: *President* — E. J. Braun, Assistant Superintendent of Schools, Arlington, Va. *Vice-President* — Harold Silverthorn, Assistant Superintendent of Schools, Gary, Ind. *Secretary-Treasurer* (re-elected) — W. D. McClurkin, Professor of Education, Peabody College, Nashville, Tenn. *Members of Executive Committee* — N. L. George, Assistant Superintendent of Schools, Oklahoma City, Okla. (3 years); Francis C. Darby, Assistant Superintendent of County Schools, San Diego, Calif. (one year).

The 1957 convention will be held in Milwaukee, October 13 to 17. The city of Seattle, Wash., was picked for the 1958 meeting.

In the resolutions the Council affirmed its previous stand favoring (1) state support and local control of school building programs; (2) federal support of school-house construction; (3) it expressed concern for the professional education of men in school plant work; (4) it approved the excellent school plant work of the Office of Education; (5) it supported the implementation of the White House Conference recommendations on school plant support; (6) it requested the Office of Education to study school building costs; (7) recommended regional meetings of the Council.

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TORTURE TESTS PROVE SAMSONITE BEST CHAIR FOR SCHOOL USE

School Board Job Can Be Dangerous

By JOY REESE

It's hard work—and dangerous—being a school board member. That is if you take it conscientiously, as member Verley T. Spivey yesterday proved he does.

With a continuing building program under way in an effort to house the system's swelling enrollments, plenty of school equipment is needed.

Thousands of steel folding chairs are among this.

At meeting after meeting representatives of school furniture concerns have been present to demonstrate their chairs and to give reasons why they are superior regardless of price.

It has been confusing. And board members, charged with spending the tax-payers' money wisely and stretching a taut budget, have been anxious to purchase the right chair.

Some weeks ago, they investigated federal specifications. Only two concerns could meet these, it was stated. One representative offered testing facilities of his parent firm.

With five companies bidding, the board delayed the award at last session, requiring authentication from bidders that their chairs meet federal specifications. All five bidders furnished proof that their chairs met modified specifications and outlined tests.

Yesterday the matter was before the school board again. So were the representatives. So were their samples.

When the item was reached on the agenda, Member Verley T. Spivey stepped silently and expressionlessly from behind the semi-circular board table.

He picked up a chair, applying strong pressure to the back-rest. It buckled. Spivey put it aside. Grimacing with effort, he put each chair through the test.

Spivey jumped on the chairs.

Board members watched in awe. He dropped them on the floor legs first. A leg on one of the finest chairs opened at the seam. He stacked it with the rejects. He did not smile and he did not speak. On went the strenuous Spivey test.

Finally one chair remained, stalwart. It was stained with blood. Spivey had ripped a finger in the vigorous effort.

Then he returned to his seat. Board Chairman Ned Searcy asked if the board objected to three-minute presentations by the representatives.

"It's all right with me, but I am ready to vote," Spivey declared. So apparently were the other board members. They listened attentively to half-hearted rebuttals. But when the matter was brought to a vote, there was no discussion. The chair which stood the Spivey test won unanimously.

The award was for 2,350 chairs at a cost of $8,704.80. The board then ordered 50 more for good measure. The contract went neither to the highest nor the lowest bidder.

"Thank you for the award," said the winning representative appreciatively, "I hope it was not our chair which hurt your finger, Mr. Spivey."

The chairman called for next item on the agenda. The school superintendent called for bandages and merthiolate.

The matter was closed.

REPRINTED FROM JACKSONVILLE JOURNAL of Florida, April 6, 1956

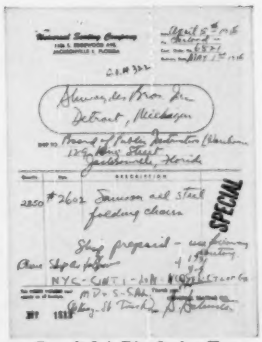
Mr. Spivey shows how he "tortured" Samsonite but couldn't hurt it!

In Sensational Test of 5 Different Chairs, Mr. Verley Spivey of Jacksonville, Florida School Board Shows How *Only Samsonite Stood Up Under Banging, Dropping and Jumping!*

1. He Dropped Samsonite... *But Couldn't Hurt It!*

2. He Stomped on Samsonite...*But Couldn't Bend It!*

3. He Tried to Crush Samsonite...*But Couldn't Dent It!*



4. Result? A Big Order For 2,350 Samsonite All-Steel Folding Chairs!

Read it for yourself—the newspaper account of the most grueling tests ever given any chairs! 4 competitive brands of chairs, bidding for a Jacksonville school contract, were banged, dropped, crushed, jumped on by Mr. Verley Spivey of the Jacksonville School Board. While the others opened at the seams, bent or buckled, *only Samsonite all-steel folding chairs stayed firm...were still in good working condition!* Samsonite was awarded the contract by unanimous approval! Here is the most convincing proof you can have that Samsonite is the strongest, most practical, safest chair for schools in America! See for yourself. Write for the new Samsonite Institutional Seating Catalogue, today!

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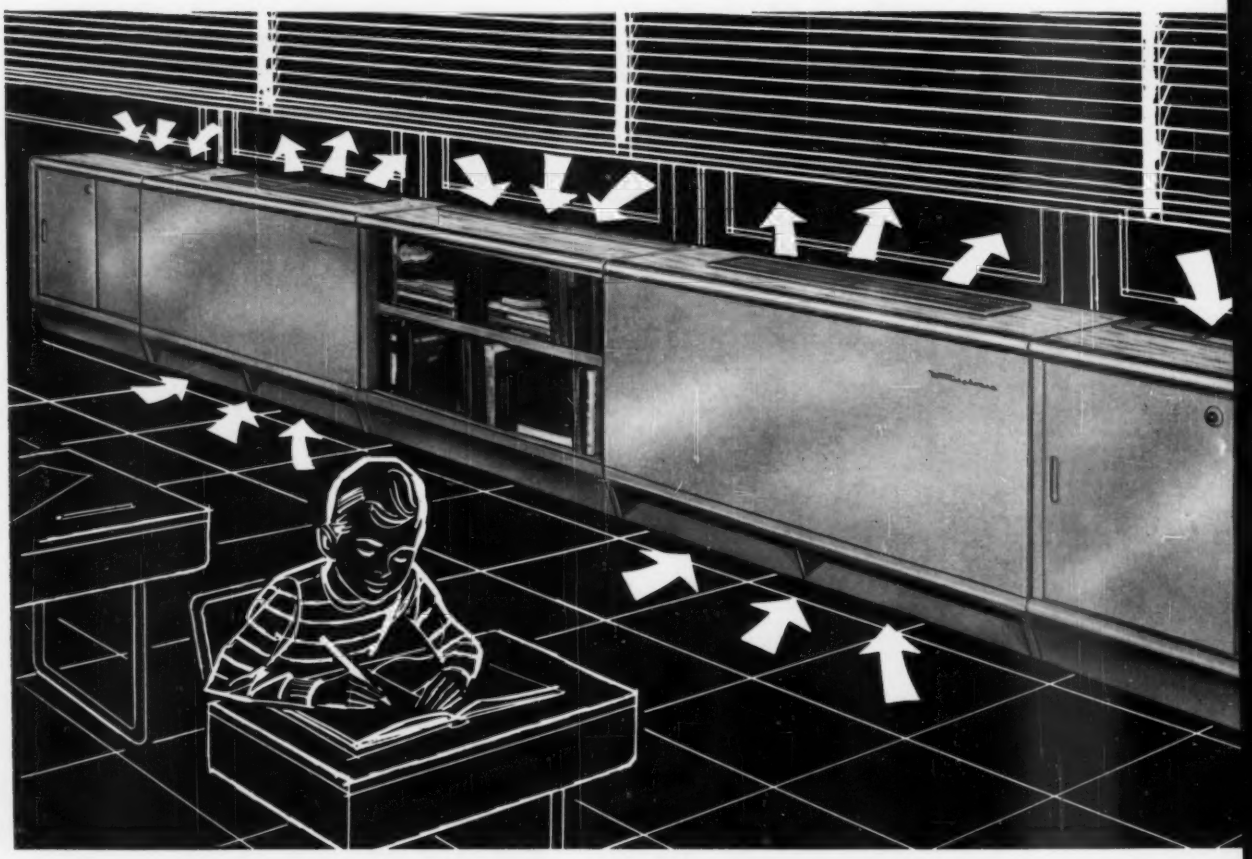

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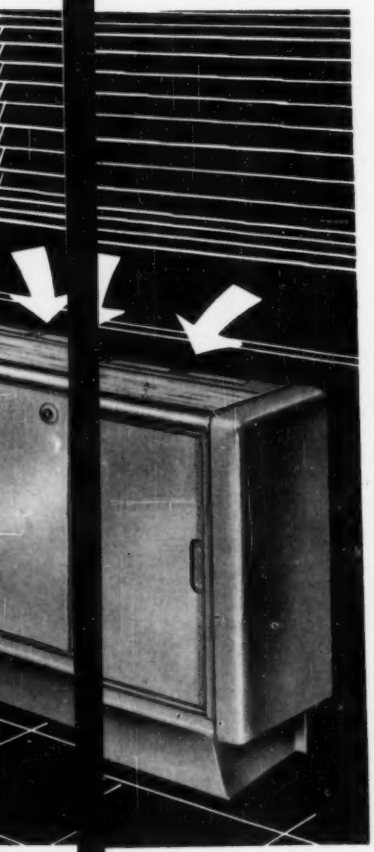

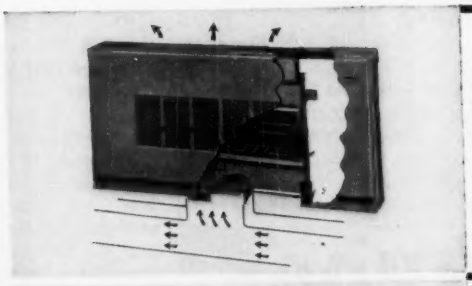

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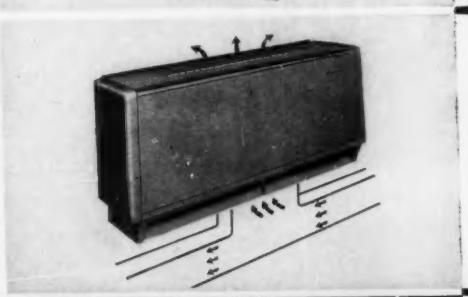

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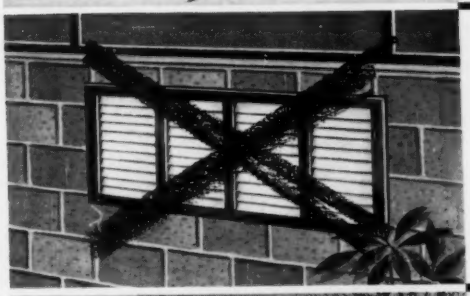

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THINGS ARE HAPPENING FOR ***YOU!***

COAL PURCHASING

(Concluded from page 57)

mentioned in this proposal and which are under the control of the board of education, School District No. 150, City of Peoria, during the school year of ——. The entire amount of washed coal shall be furnished for the total sum of ($——) —— dollars, said sum being the entire total cost of all such said washed coal to be delivered by me/us to the Board of Education, District No. 150, when and as required and at all of the buildings designated, when and as directed by the board of education, and hereby bind myself/ourselves to the faithful performance of this proposal, if awarded the contract.

"It is hereby further stipulated that this contract sum $—— is based upon an average degree day year of —— degrees as supplied by the U. S. Department of Commerce Weather Bureau for Peoria, Illinois.

"The vendor shall waive the first one hundred (100) degrees. For example, if the bid is based on 6,000 degree days and the degree days fall between 5,900 and 6,100 — there will be no adjustment in price. Any variance beyond these limits would be adjusted to 6,000 degree days on a straight percentage formula."

The Degree Day

A degree day is defined as the number of degrees that fall below an average of 65 for each day during the heating season. The sum of all the days gives the total number of degree days for the year.

Bids will always be taken by straight lump sum and by lump sum based upon degree days. If the bidders do not bid so that the difference between the two is worthwhile, then the straight lump-sum plan will likely be adopted. For instance, the difference this year amounted to almost ten thousand dollars. The successful bidder chose a degree-day basis of 5400 which is about as low as this total gets in this area. However, when the straight percentage formula is applied, the degree days could increase slightly over the average for the past ten years at no additional cost to the board of education.

If the Peoria board of education had purchased coal for the past 10 years on a degree-day basis, there would have been one year in which no adjustment would have been made, there would have been adjustments in each of the other nine years but in only one year would the price have been greater than the straight lump-sum bid. This, of course, is assuming that the difference between the two bids would have been as good as the one that exists for 1956–57.

It might be of interest to the reader to give the following:

1. Average number of degree days for the past ten years in Peoria	5927
2. Average tonnage for the past six years*	10459
3. Average total cost for the past six years*	$66,423.61
4. Straight lump sum bid — 1956–57	$79,244.62
5. Lump sum based on degree days — 1956–57	$69,660.00

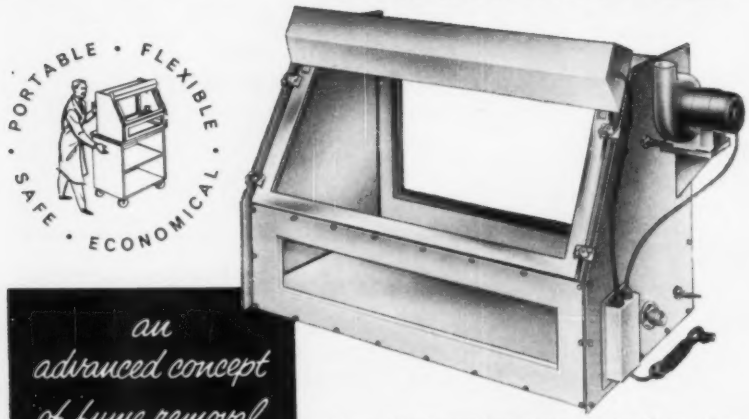
The general specifications state the kind, quality and type of coal needed. The washed coal shall have not less than 10,500 B.T.U.'s per pound and the ash content shall not exceed 10 per cent. The type of coal is definitely defined under each of the three categories — egg, screenings, and stoker. The supplier must state the name of the mine where the coal is obtained, the name of the company that owns the mine and its location in Illinois.

Deliveries must be made as ordered in trucks whose gross weight shall not exceed 24,000 pounds. Invoices according to weight tickets can be made monthly with adjustments at the end of the year for estimated inventories on hand. The successful bidder must supply a performance bond of $15,000.

To aid the various bidders, the board of education gives the location of the buildings, the number of boilers in each and the type of coal required at each, also, the number of tons of coal of each type supplied during the previous heating season. The contract contains the usual escalator clause to provide for any increase or decrease in labor costs, contributions to the miners' welfare fund, material (coal) costs, and freight rates. Any increase in cost shall not exceed the lowest increase charged to any industrial user in Peoria.

* The past six years were used because the number of buildings was more comparable.

NEW KEWAUNEE **FLEXIHOOD**



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FLEXIBILITY. Readily moved to serve all science departments, permitting maximum convenience for class demonstration. Easily connected to present service facilities. Exhaust system may be floor, window or ceiling.

SAFETY. Assures complete safety in fume removal and hazard control at any location. Meets all requirements of State Boards.

ECONOMY. Substantial savings over fixed hood system. Less first cost; lower installation cost; no separate plumbing cost; no expensive blower and duct system required; lower maintenance cost; less heat loss.

COMPACTNESS. Saves valuable space. Only 36½" wide (43" with blower), 25" high, 20" deep.

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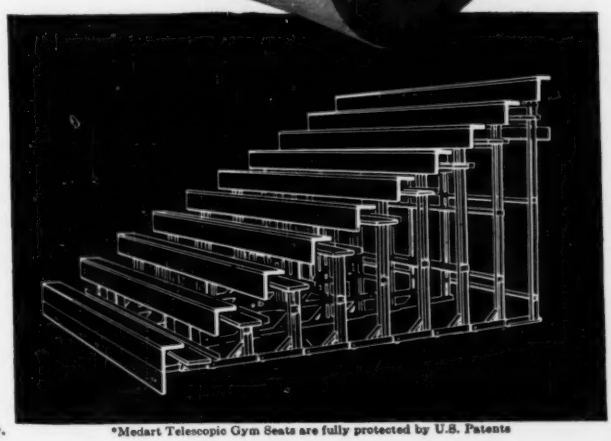
MORE STRENGTH—Self-supporting, free-standing steel understructure does not depend on wood members for strength.

MORE ROOM—22″ or 24″ row depths, plus under-seat clearance provides more toe, heel and leg room.

MORE VISIBILITY—10½″ or 11½″ row rise makes seeing easier.

LESS EFFORT—Free-floating, interlocked roller housings and supports under seats make Medart Seats easiest of all to open and close.



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One of the toughest problems school districts face—providing, at reasonable cost, classrooms, auditoriums, and gymnasiums for an ever-increasing enrollment—is one of the easiest to solve with Butler metal buildings. To begin with, pre-engineered and mass-produced Butler buildings cost substantially less than conventional construction. The strong rigid frames and tough, die-formed, weather-tight cover panels go up so fast (sometimes months ahead of other construction) that labor costs are pared to the core. Further expansion, when necessary, is easy and entirely compatible with limited budgets—and is done with 100% materials salvage. For information on other Butler metal building features, mail coupon below for catalog.

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TEACHERS AND ADMINISTRATION

CONTRACT NOT BINDING

The attorney general of Nebraska has recently ruled that a school district which decides not to operate its school cannot be bound to a contract made previously with a teacher. The opinion which was requested by State Commissioner F. B. Decker, and concerned a Class One school which had entered into a contract with a teacher prior to its annual meeting. At the meeting, the district decided to close down the school and send the children to another district.

TEACHER ORIENTATION DAY

The public schools of Parma City, Ohio, on August 31, 1956, held an orientation day at which time 150 new teachers were welcomed. On September 4, greetings were extended to 510 staff members.

Supt. Carl C. Byers, commenting on the occasion, pointed out that 15 years ago when he entered the system, there was a staff of 94 members and the pupil enrollment figure was 2900. In September, 1956, the enrollment reached 14,471.

The school district is the fastest-growing one in Ohio, and the schools receive favorable recognition over the entire state. Prospective teachers are directed to Parma on the basis that it is a wide-awake, progressive system in a desirable suburban location.

The salary picture is bright. There is a sound, basic salary schedule, and salaries are in line with other Greater Cleveland area salary schedules. A bond issue has been proposed for new buildings, additions, improvements, and furnishings, to cost an estimated $3,200,000.

TEACHERS AND ADMINISTRATION

★ West Mifflin, Pa. The school board has banned maternity leaves for teachers and other school employees. Persons refused such leaves will be permitted to resubmit an application and will be considered the same as other persons applying for positions.

★ Bozeman, Mont. During the school year 1955–56, the elementary school faculty, through an in-service training program, approved by Supt. John Shively, has evolved a new course of study from kindergarten through grade six. The study which includes the recommendations of the state education department and suggestions from other schools, is arranged on a six weeks' basis. Many of the teachers engaged in the program received undergraduate and graduate credit for their work.

★ New York, N. Y. Supt. William Jansen has given assurance that there will be a normal program of extracurricular activities in the high schools this term. Afterschool activities, including clubs and dramatic and musical events, were seriously curtailed last year by a teacher boycott. The teachers adopted this tactic in support of their demands for higher salaries.

★ The New York Teachers Guild, AFL–CIO has included in its objectives this year a number of proposals to meet the disciplinary problem in the schools. The Guild has called on the school board to adopt the philosophy that the discipline of difficult students is a problem of the school administration and that this responsibility may not be shifted to the teacher. It called for the establishment of special schools for unruly high school students who cannot adjust to the life of the normal school.

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Sheldon furniture is arranged in work centers according to authoritative teaching principles. Because of their adaptability, Sheldon units may be easily relocated. This provides greater teaching flexibility, promotes efficient instruction of groups or individuals.

Sheldon furniture provides equal opportunity for every student, *and does it at lowest cost throughout years of service.*

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St. Agnes High School, Rochester, N. Y.
Architect: Waasdorp & Northrup; Contractor: A. W. Hopeman & Son

St. Agnes Divides to Conquer Space Problems

Plans for new St. Agnes High School specified one large conference room for student use. But on occasion it had to accommodate two different group activities at once. The architect recommended FOLDOOR. Now, at a touch, FOLDOORS make two rooms of one. Or in seconds, FOLDOORS glide completely out of the way again. Similarly, FOLDOORS gave St. Agnes faculty members their private dining room without lost floor space (see inset). If *you* build or remodel, consider this flexibility that FOLDOOR offers . . . at such low cost in space and money. There are sizes and fabrics for every situation, plus an option of electric control or hand operation. See your FOLDOOR distributor for details. He's listed under "Doors" in the yellow pages of your telephone directory.

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CITY _____ STATE _____

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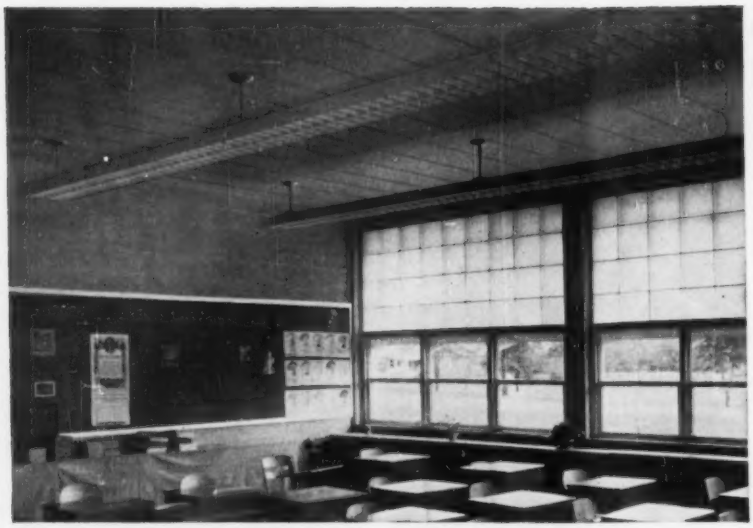

This schoolroom has a beautiful, firesafe, precast concrete ceiling that cuts costs.

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This type construction used with any exterior design.

Lightweight concrete roof is firesafe, permanent construction.

. . . at lower cost

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SCHOOL LAW NEWS

School Lands and Funds

The federal constitution does not require that a state maintain a system of public schools, whether attendance be compulsory or voluntary; the matter is exclusively one of state policy. — *Constantian* v. *Anson County*, 93 Southeastern reporter 2d 163, N.C.

School District Property

Where land which had been dedicated in 1833 "for a meeting house and schoolhouse," was no longer required for such use, and there was no indication that such premises might be needed for that purpose in the future, a court of equity would permit a board of education (which held such land in fee simple in trust for public purpose) to sell such land and apply the proceeds to the construction and maintenance of school buildings within the territory. Ohio const. art. 18; R.C. §§ 3313.41, 3313.19. — *Board of Education of City of Wapakoneta* v. *Unknown Heirs of Aughinbaugh*, 134 Northeastern reporter 2d 872, Ohio App.

In the absence of an arbitrary or collusive action, the board's decision as to the location of a school site was final. — *Browning* v. *Board of Education of Fairview Independent School Dist. of Boyd County*, 291 Southwestern reporter 2d 17, Ky.

The board of education had the right and duty to rescind its original certification accepting a school construction job when the certification appeared to be in error. — *Application of Caristo Const. Corp.*, 152 N.Y.S. 2d 259.

Where the evidence impelled a finding that a pupil was injured when he fell while swinging on a horizontal bar and not while jumping for the bar, no liability could be imposed upon the board of education. — *Seda* v. *Board of Education of City of New York*, 152 N.Y.S. 2d 356.

School District Taxation

Where the board of education, which had once certified acceptance of a school construction job, rescinded certification and approved a corrected final payment certificate for a lesser sum, withholding an amount pending the acceptance of disputed items, the comptroller's authority to pay the disputed amount was terminated, and a mandamus did not lie to compel payment. *Civil Practice Act*, § 1283 *et seq.* — *Application of Caristo Const. Corp.*, 152 N.Y.S. 2d 259.

A bond offer was not void for discrimination against children of the white race, even though two of nine school projects contemplated by such order were specifically described as facilities "suitable for colored children." N.C. const. art. 9, § 2. — *Constantin* v. *Anson County*, 93 Southeastern reporter 2d 163, N.C.

Where an election authorizing the issuance of bonds by a school district was invalid because the ballot used in the election was dual in nature and in violation of the statute, but subsequently, the board called another election and submitted the proper ballots, and the issues presented on such ballots both carried, the result of such second election was to ratify the action of the board in issuing and selling the bonds after the first election. G.S. 1949, 60-3316; G.S. 1953 Supp. 72-2018. — *Tyler* v. *Common School Dist. No. 76*, 298 Pacific reporter 2d 215, Kans.

The voters in a school district had the power in a second election to ratify the action of the school board in issuing and selling bonds after an invalid first election. G.S. 1949, 60-3316. — *Tyler* v. *Common School Dist. No. 76*, 298 Pacific reporter 2d 215, Kans.

New DODGE *PowerGiant* School Bus Chassis

You'll heartily approve of the thorough safety-first engineering job Dodge has done in these '57 models to protect your children.

Check on it, *personally*. You'll find that Dodge offers new reserves of V-8 power for safer hill ascents, and new, independent headlight circuits that keep lights *on*, even if other parts of the electrical system short out. You'll find that Dodge brakes . . . axles . . . springs . . . frame members . . . and virtually all other parts you can name, meet or exceed N.E.A. standards. Get a bid from your Dodge dealer before you decide. It's to your advantage.

HERE ARE JUST A FEW OF THE MANY SAFETY-FIRST FEATURES DODGE OFFERS:

- New V-8 power for safer hill ascents.
- New independent headlight circuits.
- 12-volt electrical system.
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- Tubeless tires slow-w-w-out instead of blow-out.
- Self-energizing rear brakes for more stop-power.

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WITH THE *FORWARD LOOK*

School Bus Chassis for Bodies Accommodating 30, 36, 48, 54, 60, and 66 Passengers

MODEL S400—153" WB.	MODEL S500—193" WB.	MODEL S500—217" WB.	MODEL S600—236" WB.	MODEL S700—236" WB.	MODEL S700—254" WB.
10,500 and 12,000 lbs. G.V.W. for 30 and 36 pupils.	15,000 and 16,000 lbs. G.V.W. for 48 pupils.	15,000, 17,000 and 18,000 lbs. G.V.W. for 54 pupils.	16,500, 17,500 and 20,000 lbs. G.V.W. for 60 pupils.	17,500 and 21,000 lbs. G.V.W. for 60 pupils.	21,000 lbs. G.V.W. for 66 pupils.

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YOU WILL SEE a continuous performance of reliable operation from the IBM Electric. Classes won't be held up by a typewriter that takes "time out"— schedules can be maintained. In every way, the IBM helps students advance faster into production typewriting.

YOU'LL HEAR a lot about the IBM in the business world—it's the favorite electric by far! So why not train students on the typewriter they will be most likely to use in their jobs of the future—the "teaching typewriter"—the IBM Electric!

ASK your IBM representative to show you—in dollars and cents—the surprisingly low per-student cost of the IBM Electric for your school. When you see these figures, based on the experience of thousands of schools, you'll see why the IBM is your most practical buy!

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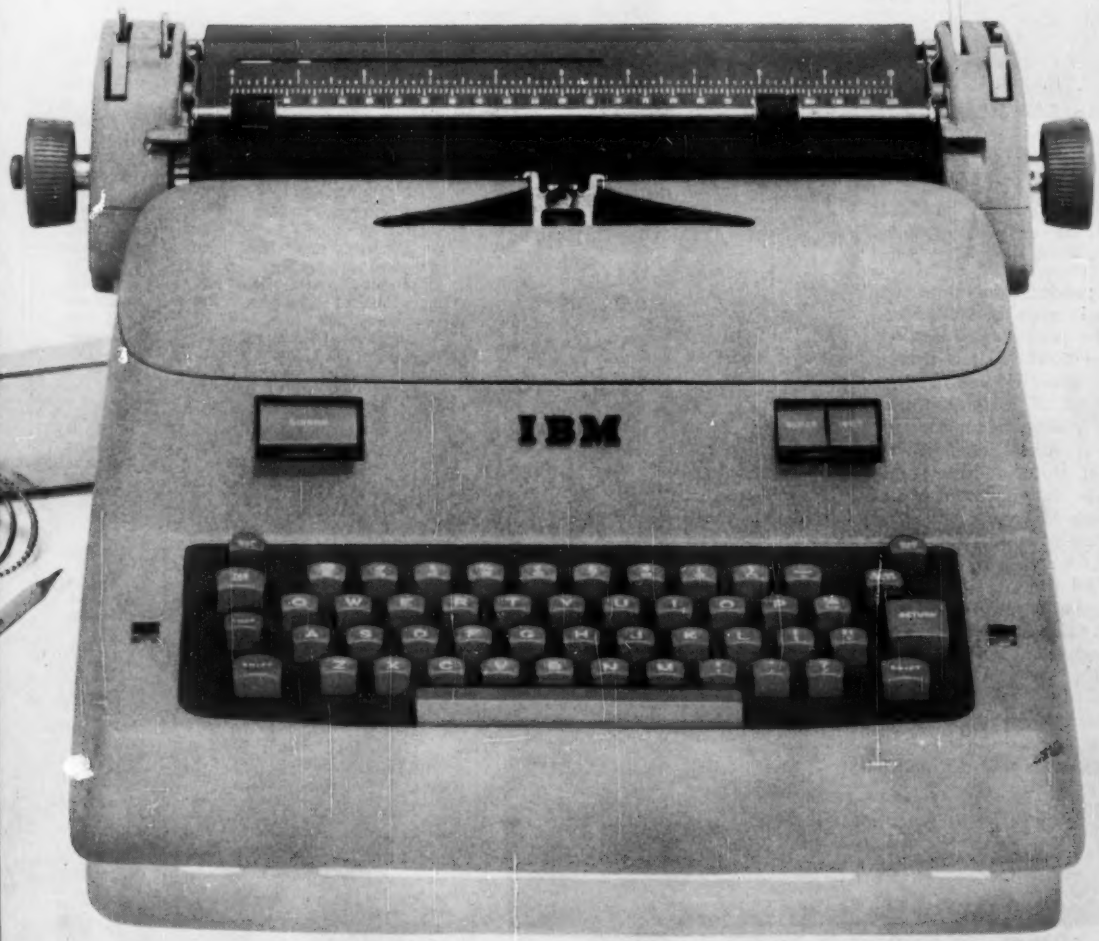

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OTHER ELECTRICS COMBINED!

NATIONAL STATISTICS OF IMPORTANCE TO SCHOOLS*

Item	Date	Latest Figure	Previous Mo.
School Building Construction[1]	Aug., 1956	$192,763,000	$195,727,000
School Building Construction[2]	Sept., 1956	$ 25,829,524	$ 51,244,057
Total School Bond Sales[3]	Aug., 1956	$112,963,536	$140,297,760
Latest Price, Twenty Bonds[3]	Sept. 20, 1956	2.94%	2.79%
New Construction Expenditures[4]	Aug., 1956	$283,000,000	$278,000,000
Construction Cost Index[5]	Sept., 1956	642	641
Educational Building, Valuation[4]	June, 1956	$113,400,000	$125,000,000
Wholesale Price Index[6]	Sept. 25, 1956	115.2	114.6
U. S. Consumer's Prices[6]	Aug., 1956	116.8	117.0
Population of the U. S.[7]	Aug. 1, 1956	168,360,000	168,091,000

*Compiled October 8, 1956.
[1]Dodge figure for 37 states east of Rocky Mts.
[2]11 states west of Rocky Mts.
[3]Bond Buyer.
[4]Joint estimate, Depts. of Commerce and Labor.
[5]American Appraisal Co., Milwaukee.
[6]U. S. Dept. of Labor.
[7]U. S. Dept. of Commerce.

Ageless beauty . . . matchless durability . . . easy maintenance are yours when you specify slate!

Only a product of Nature can take hard usage so well. Slate has all the qualities you look for when you build . . . it is strong, sanitary, non-absorptive . . .will not contract or expand. Maintenance is low under normal usage . . . past performances show that slate outlasted the buildings in which it was installed. Never more in vogue than it is today, slate's neutral color and smooth finish create a fine, subdued effect when used in combination with the strong, clean colors so popular in modern classroom decor.

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PEN ARGYL PENNSYLVANIA

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SCHOOL FINANCE AND TAXATION

SCHOOL BOND SALES

During the month of August, 1956, permanent school bonds for school construction were sold in the amount of $112,963,536. The largest sales were made in:

California	$10,444,500	New York	$17,086,000
Connecticut	9,200,000	Ohio	11,173,000
Michigan	6,721,000	Oregon	3,480,000
Minnesota	3,901,000	Pennsylvania	14,530,000
Missouri	4,150,000	Texas	6,394,000
New Jersey	2,874,000	Wisconsin	5,024,000

As of September 20, 1956, the average yield of 20 bonds was 2.94 per cent.

SCHOOL CONSTRUCTION

During the first half of the month of September, 1956, contracts were let in 11 western states for 78 school buildings to cost $25,829,524. Additional projects, numbering 150 schools, were reported in preliminary stages, to cost $129,494,243.

CINCINNATI BUDGET

The Cincinnati, Ohio, school board has adopted a budget of $23,175,665 for the year 1956–57. The budget proposes an increase in expenditures beyond the appropriations for the current fiscal year of $888,010.

In this budget, the salaries and wages of the professional staff and the civil service staff account for 86.4 per cent of the total. These expenditures are determined by the number of pupils to be taught, the number of teachers, supervisors, and administrators required, the number of physical plants to be maintained, and by the pay policies which determine all employees' pay checks. All expenditures for personnel proposed in the budget are strictly confined to the implementation of board policies and the maintenance of established standards.

SELL $30 MILLION BONDS

The city of New York has sold $30,000,000 in school bonds in the public market, at an interest cost of 3.2785 per cent. The winning bid brought a price of 100.1499 for obligations bearing interest of 3.3 per cent. The premium amounted to $44,970.

SCHOOL BONDS

★ Seattle, Wash. The board voted to submit a $25,000,000 bond issue to the voters.

★ Prince Georges County, Md., board approved an $11.5 million building program, to call for 237 additional classrooms, 13 new schools, and 19 additions to existing buildings.

★ The Los Angeles school district has sold $29,000,000 in junior college bonds to a syndicate group, at a bid of 101.64, for a 3¼ per cent coupon. The bonds were reoffered at prices to yield from 2 to 3.1 per cent.

BUDGET TOPS $26 MILLION

The Indianapolis, Ind., board of education has adopted an operating budget of $26,279,883 for 1956–57, an increase of $1,883,745 over last year. The board has set up a $2.425 levy on an estimated assessed property valuation of $728,667,290.

SCHOOL BUDGETS

★ San Francisco, Calif. Adopted $40,099,416 for 1957, an increase of $3,178,976.

★ Stockton, Calif. Approved $9,211,908, an increase of $600,000.

★ Alhambra, Calif. Adopted $6,386,331.

★ Fort Worth, Tex. Adopted $15,266,001, an increase of $1,513,575.

★ Kanawha County, W. Va. Approved $11,221,643.

★ Santa Cruz, Calif. Approved $8,534,000.

★ Amarillo, Tex. Adopted two budgets, totaling $7,000,000.

★ Corpus Christi, Tex. Approved $8,106,187.

★ Beaumont, Tex. Adopted $4,429,985, an increase of $662,607.

GOOD TEACHING MATERIALS

4. Help develop judgment and discrimina-

HOME INSTRUCTION

ROCKWELL-BUILT

DELTA

drill presses!

NEW DELTA 15"—World's most versatile drill press for student instruction—extra safe for student operation!

DOES MORE JOBS MORE ACCURATELY—Really *practical* for teaching because it does so many jobs so well. *Only* Delta gives you a selection of *six* spindle adaptors—mounted on a ground taper for complete accuracy, featuring a threaded collar for *positive* locking.

SAFE, EASY TO OPERATE—*Only* Delta combines the best features of pilot wheel and single lever feeds with an *exclusive* single lever hand feed. You get adjustable leverage—freedom from striking table or fixtures—almost infinite choice of feed lever positions. Pushbutton switch (optional accessory) with protruding stop and shrouded start buttons prevents accidental starts, provides for quick emergency stops.

BUILT TO LAST—Spindle has four over-sized, preloaded, lubricated-for-life ball bearings for *extra* ruggedness. Big 2" dia. quill and massive one-piece head casting provide greater rigidity.

NEW DELTA 20"—Ideal for teaching production tooling operations because it's a big-capacity heavy-duty drill press that's safe, easy to operate, built to last!

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School_____

Address_____

City_____ County_____ State_____

GOOD TEACHING MATERIALS

Eleven characteristics which must be found in all teaching materials before accepted for school use have been published by the U. S. Office of Education. The characteristics apply not merely to textbooks and to items which the schools must purchase, but also to free materials which are received from commercial sources.

Before a new teacher considers and puts into use free materials the tests employed in the following list should be applied. They should particularly be applied to audio-visual materials, samples, and exhibit materials.

1. Meet needs common to the group for which the material is intended.
2. Add interest to the learning process.
3. Supplement information available in reference books or present it in a more effective way.
4. Help develop judgment and discrimination.
5. Help develop initiative, self-direction, and resourcefulness.
6. Are positive in approach.
7. Emphasize standards consistent with individual and family well-being.
8. Present information accurately and honestly without bias, deception, or exaggeration.
9. Cite authority or sources of information.
10. Present content that is: (*a*) up-to-date and timely; (*b*) about products rather than specific brands; (*c*) well organized; (*d*) clear, concise, and easy to read.
11. Present material in a form that is: (*a*) well designed and illustrated, with good balance between pictures and text; (*b*) easy to handle, display, and store.

TURN-TOWLS • *improve service* • *lower costs in college washrooms*

SURVEYS definitely show that washroom towel consumption goes up as the age level of the student goes up. That is why more towels are used per person in colleges and universities than in elementary schools. It is also one reason why Mosinee Turn-Towl service is being used in an increasing number of colleges and universities.

The combination of these 100% softwood fibre Turn-Towls and the controlled Turn-Towl cabinets will reduce towel consumption from 40 to 50% . . . resulting in considerable savings.

Write for name of nearest distributor

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Sulphate Towels
BAY WEST PAPER CO.
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Division of Mosinee Paper Mills Co.

HOME INSTRUCTION

During the year 1956–57 more than 500 physically handicapped, homebound children in New York City will receive instruction through radio-telephone.

The work to be covered during the coming year will include English, world history, American history, general science, and biology. There will also be special events broadcasts on books, news events, and similar activities. A staff of five teachers and a clerk conduct the home school program of the air. Instructional materials and textbooks are mailed in advance to the homes of the students so that they may prepare their lessons in advance. About 156 typewriters have been provided for older children.

It is expected, according to Dr. William A. Hamm, head of the division of health of the schools, to provide television programs in the future.

RELEASED TIME PROGRAM

More than 3,000,000 public school students are enrolled this year in weekday religious education courses in the United States, according to Dr. Erwin L. Shaver, director of weekday religious education for the National Council of Churches.

The courses are being offered in 3,000 communities in 45 states on a "released time" basis. They are designed to supplement the religious instruction which the average child receives in Sunday School. While the enrollment this year is the largest in the history of the program, it represents only one-tenth of the nation's total school population of 32,000,000.

In New York City, the program is being resumed this fall for more than 100,000 children attending city schools. The sessions which run from October to May are held one day a week in five boroughs. The program is sponsored by the Greater New York Coordinating Committee on Released Time.

TO CUT WASTE IN SUPPLIES

The New York City school system has recently taken steps to tighten controls over its multi-million dollar stock of supplies, equipment, and instructional materials in use in its 850 school buildings.

Supt. William Jansen has announced a new inventory program, calling for an actual physical count once each year of supplies on hand. Under the program, each school will maintain a continuing inventory of materials on hand in the school. This inventory will be available for inspection at all times. The count will include items in all storage spaces.

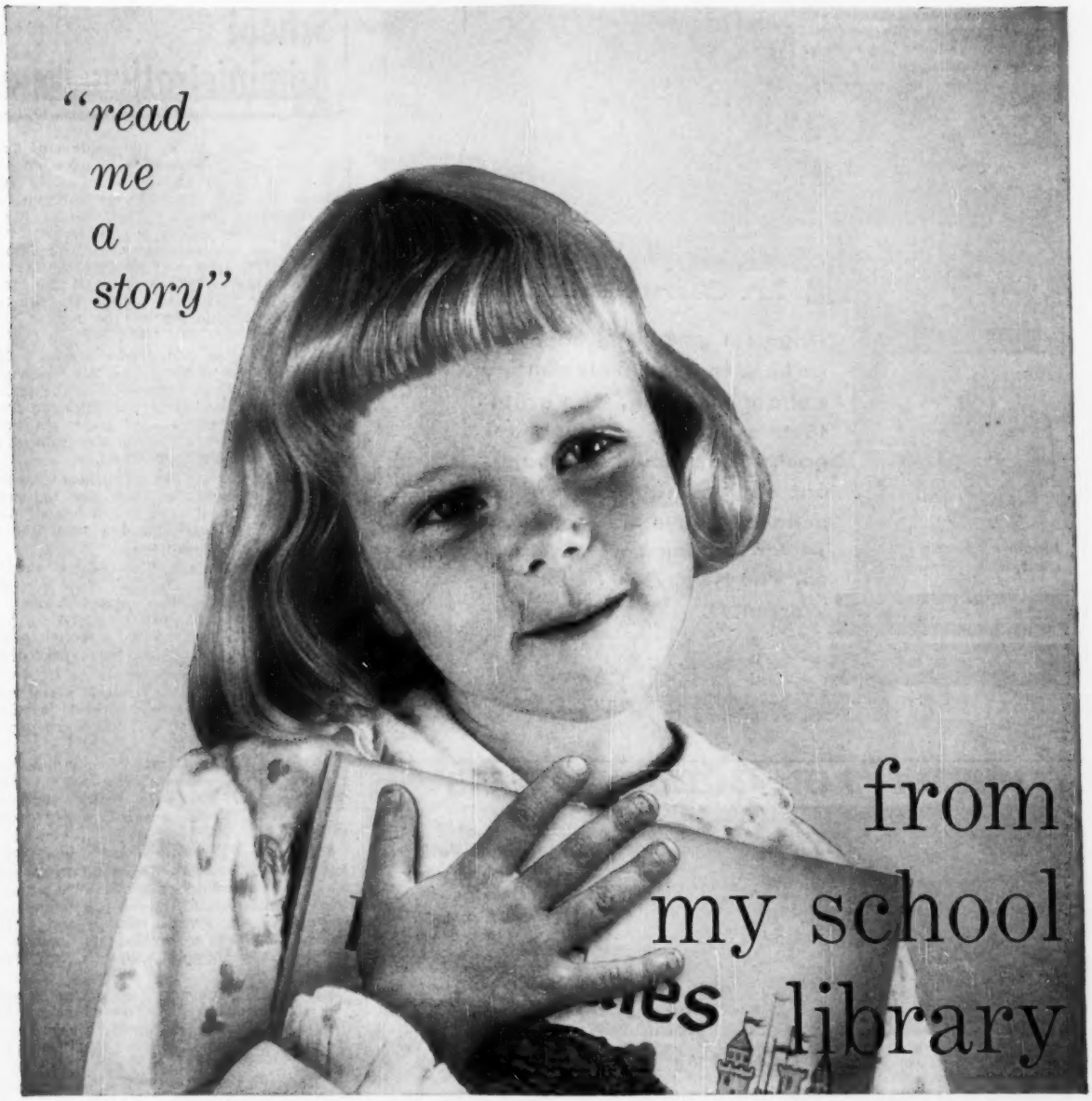
The inventory will include a price valuation of materials on hand, to be reported to the Division Superintendent at the board headquarters. Each principal will be responsible for the supplies inventory, but he may delegate the task to a member of the faculty.

ACCOUNTING SYSTEM

The school board of Lebanon, Mo., has recently installed a machine accounting system for use in local, state, and federal reporting. The system handles check writing, posting, and budget control, and all funds pertaining to school revenue, lunch program, and internal accounting.

ANTI-SMOG MUFFLERS

School buses in Los Angeles, Calif., are being equipped with anti-smog mufflers intended to reduce air pollution in the city. The new mufflers are described as afterburners which mix air with the exhaust gases and consume them in a chamber at a temperature of about 1000 deg. F. The device which is used on some local transit buses and school buses in neighboring school districts, sells at $187.



Does your school library invite students to come in and read . . . to take books home?

Now, more than ever, the school library is needed to bridge the chasm between our mass educational techniques and the means to round out the learning process under these conditions. Now, more than ever, in this era of crowded classrooms, overworked teachers, the library should be the hub of the students' world. Now, more than ever, in this television era, good reading habits must be encouraged.

The flow of letters into the Advisory and Consultation Service of Remington Rand's Library Bureau testify to this need. Every day Library Bureau Specialists are answering inquiries dealing with layout and equipment and ranging from book collections to services.

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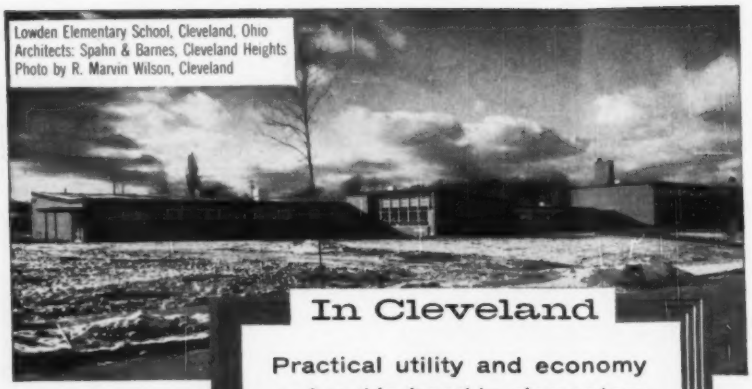
Lowden Elementary School, Cleveland, Ohio
Architects: Spahn & Barnes, Cleveland Heights
Photo by R. Marvin Wilson, Cleveland

In Cleveland

Practical utility and economy go hand in hand in elementary school planning. The architects strikingly achieved this goal, while specifying throughout equipment of proven dependability. Naturally, Halsey Taylor fountains were selected. The Halsey W. Taylor Co., Warren, O.

Attractive wall fountain, one of many in Halsey Taylor line

HALSEY TAYLOR *America's Favorite* Fountains

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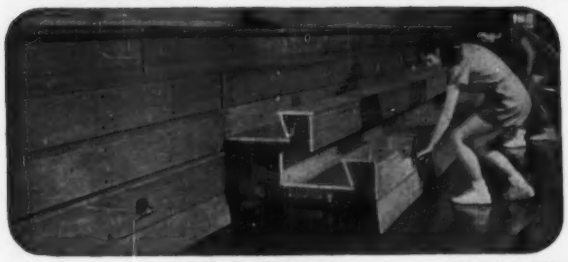
HUSSEY "ROLL-OUT" GYM SEATS



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Gage Park High School Chicago, Ill.
240 Seat, 4 Tier Installation
Extra seating or extra floor space as needed. Easy to open — easy to close. Note exclusive, Hussey "closed deck."

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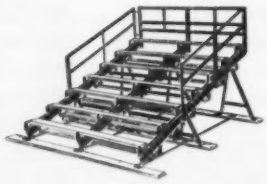

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School Administration News

★ New York, N. Y. The position of director of all-day neighborhood schools has been established with the appointment of Miss Adele Franklin, formerly an assistant administrative director. The director is in charge of nine all-day neighborhood schools, as well as summer programs at six schools. The pupils, who are children of working mothers, stay in school from 9 a.m. to 5 p.m. They participate in special recreation programs in addition to the regular class period.

★ Herculaneum, Mo. Under a new policy, the last period of the school day is devoted entirely to activity purposes. The change has been made to take care of athletics and other extracurricular activities of pupils who ride the school buses and who are required to leave immediately after school.

★ Topeka, Kans. The school board has approved the creation of three new top positions, including a deputy superintendent, a supervisor of libraries, and a supervisor of science and mathematics.

★ Gettysburg, Pa. The Adams County school board has approved plans for the special education of handicapped children. A teacher's helper has been employed for the day care training center, and a second speech and hearing therapist has been assigned to the speech center.

★ Louisville, Ky. Public schools of the city were integrated this fall without incident. About 2810 of the city's 12,500 Negro pupils were eligible to attend.

★ Renton, Wash. Corporal punishment for extreme cases has been approved by the school board. The new policy approves striking a child only as a last resort and in extreme cases.

★ The school board of Snyder County, Pa., has established special educational classes for backward boys and girls who can best profit from the instruction. One class is limited to children of the seventh, eighth, and ninth grades. The classes are divided into elementary and high school groups, each in charge of a trained teacher.

★ Bristol, Pa. A new center for handicapped and retarded children has been established in the Bath Street School. It will provide a cooperative workshop for local blind and retarded children.

★ The public schools of Mexico, Mo., are conducting a testing program during the school year 1956–57, which includes the administration of the Iowa tests of basic skills in grades three through nine. The test information is to become the basis for teacher-parent conferences scheduled for the first semester. School time is given to the conferences, which are scheduled on the basis of 30 minutes for each conference.

★ Silver Creek, N. Y. The school board, with the co-operation of Supt. Frederick Feltz, has successfully completed a centralization plan with ten other neighboring districts.

★ San Bernardino, Calif. The board of education has decided to continue its policy of terminating employment of probationary teachers by a simple method of giving notice in writing. The board rejected a request of the American Federation of Teachers to give such teachers the right of a hearing before the board. Dr. Donald R. Wheeler, director of personnel, pointed out that the burden of proof on the quality of work is on the probationary teacher.

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...as you need to?

The Hillyard Maintaineer has had years of training and experience in every conceivable type of floor problem. He will gladly put this experience at your disposal, help train your staff. There's no charge, no obligation.

He's "On Your Staff, Not Your Payroll."

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PASSAIC, N. J. SAN JOSE, CALIF.

LET THE MAINTAINEER HELP YOU!!

HILLYARD, St. Joseph, Mo.

Yes, I'll take you up! Without charge or obligation, have the Hillyard Maintaineer® show me how to take advantage of new streamlined floor treatment procedures.

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Have you studied your floor maintenance costs lately? Have you analyzed your cleaning methods to determine whether you are using too many operations—needless rinsing, for example—or are wasting time in prolonged scrubbing when the right cleaner would get the dirt loose in a fraction of the time? Remember, 95c of every floor maintenance dollar goes for labor! Call in your nearby Hillyard Maintaineer® for consultation. He will carefully study your floor problems and recommend (1) modern, streamlined work methods and short cuts, and (2) the tools and materials to enable you to take advantage of the short cuts, to keep your floors in better condition than ever before!

CASE HISTORY—SCRUBBING

FILE 12

Super Shine-All, Hillyard's Neutral Chemical Cleaner, does the hard part of your work. Gets under and loosens the dirt for easy removal -- yet is non-reacting and safe for any type floor, including asphalt tile. Leaves no residue; requires no rinsing. Cuts out 2/3 of the labor and labor time -- takes the rubbing out of scrubbing! U/L approved slip-resistant.

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Look to KRUEGER posture-perfect Series 80!

No. 82

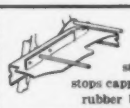
For all-around comfort, durable rigidity, strength and functional purpose you can't match *this* folding chair. It's Krueger's finest and *your best long-life value.* Non-tipping Y-type frames of heavy-gauge tubular steel are electrically welded into one strong unit that will withstand the hardest usage.

A WEALTH OF FEATURES — Such as vertical frame strengtheners; strong, secure and silent seat stops; unusually large, posture-comfort seats; fully covered safety hinges; and quiet, quick and easy folding action are just some of the many features built into Krueger's exacting engineering standards.

TWO POPULAR MODELS — No. 81, an all-steel chair with contour shaped seat and backrest; No. 82 which features a 5-ply hardwood veneer contour seat with steel backrest. Choice of Beige, Azure Grey or Saunders Green baked-on enamel finish frames—Wood seat, natural satin finish.

THESE DETAILS ASSURE LASTING SATISFACTION

6-inch built-up frame strengtheners — seat spacers provide more rigid bearings at seat pivot point—prevents frame spreading.

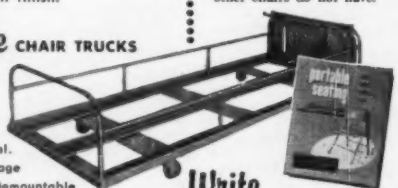


Spot-welded steel seat stops capped with rubber bumpers assure positive seat lock —quiet operation when opening or folding chair.

Fully covered safety hinges prevent finger pinching and clothing tears—a safety factor feature many other chairs do not have.

Demountable CHAIR TRUCKS

Four standard sizes hold both X-type channel and Y-type tubular chairs — upright or horizontal. Regular or under-stage models available. Demountable end arms and exclusive *chan-angle* frame permit stacking empty trucks.



Write

For new, complete line catalog No. 600 as well as brochure No. 100.

KRUEGER

METAL PRODUCTS • GREEN BAY • WISCONSIN

this **cook WASHER** will cut your daily laundry cost by **55-78%!**

Having your own Commercial laundry equipment makes good business sense in 2 big ways:

1ST Buy fewer athletic, janitor and cafeteria uniforms . . . operate with fewer linens, towels, aprons, mops, etc. Your own equipment is always ready to wash everything quickly, gently, AUTOMATICALLY, SAVING 55-78% on contract laundry costs.

2ND Only the Cook Washette is engineered for MECHANICAL SIMPLICITY . . . fewer working parts, which reduce friction, lower maintenance costs and eliminate breakdowns.

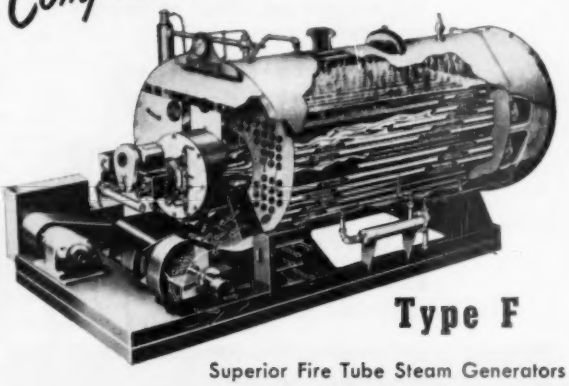
Find out why SCHOOLS AND COLLEGES are acquiring their own COOK WASHETTES . . . why more COOK WASHETTES are sold to institutions than any other commercial washer.

MANUFACTURERS OF LAUNDRY EQUIPMENT

cook MACHINERY CO., INC.

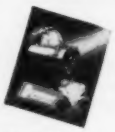
4127 Commerce St., Dallas, Texas

Completely **PACKAGED BOILERS**



Type F

Superior Fire Tube Steam Generators are completely factory assembled and tested. Capacities range from 20 to 600 b.h.p. for steam or hot water heating and for industrial applications requiring pressures to 250 p.s.i. Built-in induced draft and full 5 sq. ft. of heating surface per b.h.p. provides efficient operation firing oil, gas or both.



Write today for details in Catalog 780 F

for performance you can **BANK** *on*

SUPERIOR STEAM GENERATORS

SUPERIOR COMBUSTION INDUSTRIES INC.
TIMES TOWER, TIMES SQUARE, NEW YORK 36, N.Y.

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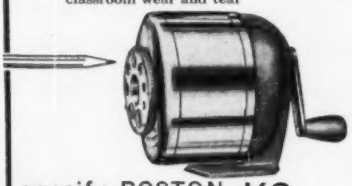
BOSTON KS

efficient—30 hard-steel, deep-milled cutting edges cut swiftly and neatly—BOSTON pencil stop prevents waste

rugged—strong, die-cast frame and steel rack—nickel-plated steel receptacle

adaptable—snap guide takes 8 pencil sizes

dependable—guaranteed 1 year—even against classroom wear and tear



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BOSTON PENCIL SHARPENERS

FREE!
School report book on pencil sharpener care, selection and use in schools.

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Camden 1, N. J.

Also mfrs. of SPEEDBALL *pens and products*

Direct Prices & Discounts to Schools, Churches, Clubs, Lodges and All Organizations

Full line of folding chairs

MONROE TRUCKS

Transport and store your folding tables and chairs the easy, modern way with Monroe All-Steel Trucks. Each truck is designed to handle either tables or chairs. Construction of Truck No. TSC permits storage in limited space.

Above: Transport-Storage Truck No. TSC

Right: Transport-Storage Truck No. TSH

WRITE FOR CATALOG, PRICES AND DISCOUNTS

THE Monroe COMPANY
6 CHURCH STREET, COLFAX, IOWA

AFTER THE MEETING

A SOLID FACT

A woman, who had baked a cake for a special social meeting of the local school board, was bewildered by the board's thank you letter which concluded with the following paragraph: "And, in summary, we certainly appreciated your hearty co-operation and good will, of which the cake you prepared for our meeting of the 18th, was a concrete expression."

THE PARENT'S ANSWER

The professional defense of modern methods of teaching has been voluminous but not always convincing to parents. Thus, the mother of a ten-year-old girl was told bluntly by the teacher that she could not possibly help the child at home. "You will only retard her progress, if you teach her yourself."

"Yes, possibly," said the mother, "and I suppose I shall have to read her diploma to her when she graduates."

READING WAS ENOUGH

It was to offset Jack Dempsey's reputation as a rough, tough hombre that Gene Tunney was built up as a gentleman boxer before their first battle for the world's championship. The campaign turned slightly sour when wisecrackers laughed at stories of Tunney reading Shakespeare.

An innocent young interviewer cornered Tunney for a story.

"And have you ever written anything yourself, Mr. Tunney?"

Tunney reddened with anger. "No!" he snapped. "There are enough people sore at me because I can read. What do you suppose they would say if they thought I could write, too?"

SHORT CUT

A couple of commuters were bragging about their children. One said, "When my son went to college it only took him three years to get his B.A." The second commuter scoffed, "That's nothing. When my daughter went to college, it only took her two years to get a Ph.D."

The first commuter gasped, "That's impossible. How could she get a Ph.D. in only two years?"

The proud father said complacently, "For her it was easy. She married him."—*Wall St. Journal.*

Give a boy and a pig all they want, and you will end up with a good pig and a bad boy.—*Chinese proverb.*

— Los Angeles Times

"Skoal"

FLAGS FOR SCHOOLS

FOR ECONOMY BUY THE BEST—BUY DETTRA

Famous "BULLDOG" U. S., State, and School Flags for Outdors

Beautiful, lustrous "GLORY-GLOSS" U. S., State, School and College flags for parade and indoor use — (Complete outfits available with Pole, Ornament,* Carrying Belt and Stand*)

Economical U. S. "AMERIGLOSS" printed flags for schoolrooms

Long-lasting "DURA-LITE" Nylon flags and Outfits for Parade and platform use

Christian, Papal and Zion Flags

**Ornaments and Stands have durable Jewelers Golden Finish*

New DETCO PROCESS State Flags printed in full color — sun and rain fast — very economical

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ASK ABOUT DETTRA'S MOVIE "OUR U. S. FLAG" The Freedom Foundation Award winning 16 mm color sound film . . . the ideal way to tell the story of our flag.

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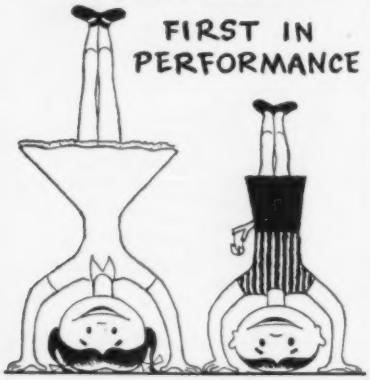
For complete information and descriptive literature about our flag products and film, call your Local Dettra Dealer or write direct to — Dept. AJ

DETTRA FLAG CO., INC.
Oaks, Pennsylvania
Flagmaker to the Nation for more than 50 years

Claridge
CHALKBOARDS and CORK Bulletins



FIRST in FIRSTS!

Claridge continues first with improvements. Top designers and engineers experiment constantly. Finest materials, time tested production methods bring you *the best* at surprisingly low cost.

Special Colors: Send color sample and boards will match your decor!

GRAPHOLITE. Low price, good quality. Fine performance, all types of buildings.

DURACITE. Guaranteed for life of bldg.

ASBESTOCITE. For long dependable service.

VITRACITE. Finest vitreous porcelain enamel chalkboard.

Claridge is fully equipped to meet the most exacting requirements in Chalkboards and Cork Bulletins.

Dept. 416 6731 Olmsted Chicago 31

News of Products for the Schools

COUNTER HEIGHT CABINETS

Cabinets in 35- and 37-in. heights, which are ideal for high school research and laboratory work, have been introduced by Brunswick-Balke-Collender Co., Chicago, Ill. Available in the new heights are a general storage cabinet, cubicle storage cabinets, and a cabinet sink. All the models are part of the "2200 series." The width and depth dimensions of the units are the same as the other "2200 series" cabinets — 47½ in. and 21⅞ in. All are constructed of reinforced honeycomb and tempered hardboard and have tops finished in protective melamine plastic. The basic color scheme is sage gray. Sliding doors, which are available optionally, come in blue, yellow, or coral.

Laboratory Cabinet

(For Further Details Circle Index Code 0164)

NEW DODGE BUSES

Fifteen new conventional school bus chassis for 30- to 60-passenger bodies are offered in the new "K" series Dodge trucks which have increased horsepower and gross vehicle weight ratings. The 15 conventional chassis range from 10,500 to 21,000 pounds G.V.W., in wheelbases ranging from 153 to 254 inches, and with V-8 engines of 197 and 201 horsepower and 6-cylinder engines of 125 and 130 horsepower. Tubeless tires are standard on the new conventional chassis and protect against dangerous blowouts and punctures. They also run cooler and last longer. A 12-volt ignition system provides quicker and surer starting and extra power for lighting and accessories. An entirely new circuit breaker switch puts headlights on a circuit different from other lights and equipment. A safety feature is provided by headlights remaining burning when shorts occur anywhere else.

(For Further Details Circle Index Code 0165)

MOBILE MILK DISPENSER

A mobile, refrigerated milk dispenser that holds up to 320 one-half pint milk cartons or bottles has been introduced by the Lowerator Division of American Machine & Foundry Co., New York 16, N. Y. Equipped with all swivel casters it can be easily wheeled into counter openings or adjacent to serving lines. Bending, stooping, and reaching are eliminated because the unit's calibrated spring mechanism keeps the top rack always at the same convenient level, whether it is full, half-filled, or nearly empty. To refill, additional racks are simply placed into the dispenser from the top. The forced air cooling unit consists of a ¼ h.p. compressor for operation on 60 cycle, 110 volt A.C. A built-in drain requires no outside connection.

(For Further Details Circle Index Code 0166)

PAINT STARCH MIXTURE

An inexpensive superior school paint that can be hand mixed has been discovered by the American Crayon Co., Sandusky, Ohio. It is an all purpose paint made by mixing Prang Powder Tempera Colors and Sta-Flo Liquid Laundry starch. A variety of delightful colors that will not spill or drip off the brush can be made. The mixture can be used by brush, stencil, silk screen, and finger painting. It is adaptable for easel painting, play props (indoor or outdoor), modeling, holiday settings and other creative crafts. Another favorable feature is that the colors wash out as easily as liquid starch.

(For Further Details Circle Index Code 0167)

EXTRA WIDE PORTABLE SCREEN

Radiant Manufacturing Corp., Chicago, Ill., has introduced a portable tripod projection screen that provides a picture area 2½ times as wide as it is high. This new screen, called the Cinemaster 2½ to 1, is designed specifically for the new dimensions being introduced in wide screen photography. It measures a full 40 by 100 inches. It may be set up by one man in three simple steps and disassembled in just as easy fashion. While in storage its fine grain HY-FLECT fabric is kept taut and wrinkle-free by a combination of a special roller lock and tensioning lever.

(For Further Details Circle Index Code 0168)

ADJUSTABLE TABLET ARM

A tablet-arm chair that may be adjusted to accommodate students of upper elementary grades and secondary schools has been introduced by Brunswick-Balke-Collender Co., Chicago, Ill. Designed to conserve space the chair is compact in size but has an increased leg spread from front to rear for maximum stability. The frame of the unit, including the support arm is of welded construction. The back and seat of the unit are riveted to the frame by a new type of Dupont explosive rivet which provides greater holding power than previously possible. The tablet arm can easily be disassembled from the support arm for storage. Storage space for books is provided for by a side book rack welded to the frame.

Space Conserving Chair

(For Further Details Circle Index Code 0169)

(Concluded on page 96)

It's electrifying!

. . . how the new Royal Electric "Touch Control" makes students shine

There's just no getting around how the new Royal Electric "Touch Control"® makes students shine! This new feature saves many hours of teaching time. Even slow students catch on quickly to electric touch.

Teachers say it makes it so much easier to switch from the "firm" action of a manual typewriter to the powered light action of an electric. Beginners find it easier too.

You simply turn a dial on a Royal and you "firm up" the touch. Then as the student adjusts you gradually reduce it to "light" again.

Of course, this is *only one* of the many reasons why Royal Electrics are preferred in schools today. Why not call in your Royal Representative? Let him show you right in your own classroom just how this new Electric typewriter can save you many hours of teaching time.

ROYAL *electric* • *standard* • *portable*
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Royal Typewriter Company, *Division of Royal McBee Corporation*

Superior Design, Construction and PERFORMANCE

far greater strength and SAFETY!

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PLAYGROUND AND SWIMMING POOL EQUIPMENT

The wise choice of experienced buyers for nearly half a century.

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PLAYGROUND DEVICE CO.
ANDERSON, INDIANA, U.S.A.
WORLD'S LARGEST MANUFACTURERS OF FINE PARK, PICNIC, PLAYGROUND, SWIMMING POOL AND DRESSING ROOM EQUIPMENT

"Stationary" racks in single or double face units snap-lock rigidly together to fit any space or provide capacity required.

Checker
COAT and HAT RACKS

Style D.F. 4-40. Portable Checker Rack (illustrated) is 4 ft. 2 in. long; holds 40 coats and hats; goes wherever needed on large, ball-bearing-swivel casters. Comes with or without checks and snap-on numbers. Strongly welded of square tubular, heavy gauge and highly embossed furniture steel. Smart in modern baked finishes. Give lifetime service — never sag, creak or sway. 3 ft., 4 & 5 ft. units available, as well as other efficient space saving equipment for every church, school, commercial, industrial and institutional need.

Write for Bulletin CK–206

VOGEL-PETERSON CO.
1121 W. 37th Street • Chicago 9, Illinois

TABLE TENNIS
anywhere . . .
anytime . . .
with new, portable
TUCK-A-WAY

Check these details:

¾" plywood top, 5' by 9' and 30" high.

SICO "Floating-Fold" frame—no latches or locks.

Frame finished in beige enamel—other colors optional.

Flat green court with white court lines.

Guaranteed 10 years against construction defects.

FREE CATALOG
gives complete specifications, write:

SICO *Tuck-A-Way*, ready for play in seconds, folded and stored away in small 16¼ x 60 inch floor space area just as fast. *Tuck-A-Way* makes any area a recreation area, produces true multi-use of space. It glides quickly and easily from one place to another; unfolds and folds smoothly and instantly on exclusive, "Floating Fold" frame.

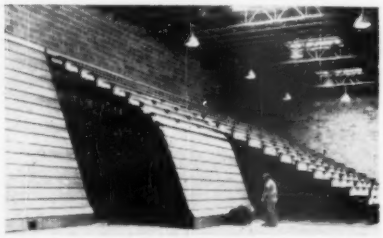
SICO *Tuck-A-Way*, designed for more flexible use of space, greater convenience and long, hard service. Tuck-A-Way carries a 10 year, written guarantee. Regulation, quality plywood top mounted on *arc welded* structural steel frame; casters are 3 inch, hard rubber.

SICO
manufacturing company, inc.
Dept. 209
5215 Eden Avenue South
Minneapolis 24, Minn.

(Concluded from page 94)

POWERIZED GYMNASIUM BLEACHERS

Universal Bleacher Co., Champaign, Ill., has introduced powerized Roll-A-Way Bleachers that may be opened or closed without physical effort in a matter of seconds. Poweroller (patent pending), the basic item, is a compact mobile electric power unit. To operate it, the custodian merely directs an extended gripper



Roll-A-Way Bleachers

arm into a small opening under the front row seat. This engages an attachment bar under the bleacher section. A touch of the handle switch starts action. Pneumatic tires protect the gym floor, yet give Poweroller enough traction for easy opening or closing of the bleachers. The operator does nothing but guide the unit from section to section and direct its action. Bleachers may also be opened or closed by hand if desired.

(For Further Details Circle Index Code 0170)

CATALOGS & BOOKLETS

A flexible line of electronic intercommunications equipment is described in a folder issued by Radio Corporation of America, Camden 2, N. J. Free copies of the folder designated Form 3R2865 are available.

(For Further Details Circle Index Code 0171)

Hot water perimeter piping systems for classroom unit ventilators are explained clearly and simply in cartoon style in an 8-page booklet recently released by the American Air Filter Co., Inc., Louisville, Ky. The booklet, Form 600-A9, is available free of charge.

(For Further Details Circle Index Code 0172)

The points to be considered in selecting carbon paper for specific typewriters are outlined in a six-page brochure published by Remington Rand, New York 10, N. Y. Copies of the folder will be sent upon request.

(For Further Details Circle Index Code 0173)

Suggestions for nailing a hardwood floor and for sanding are given in a recent news release issued by the Maple Flooring Manufacturers Association, Chicago 1, Ill.

(For Further Details Circle Index Code 0174)

A colorful catalog detailing their new line of industrial and commercial buildings and accessories has been published by Stran Steel Corporation, Detroit, Mich. Copies are free.

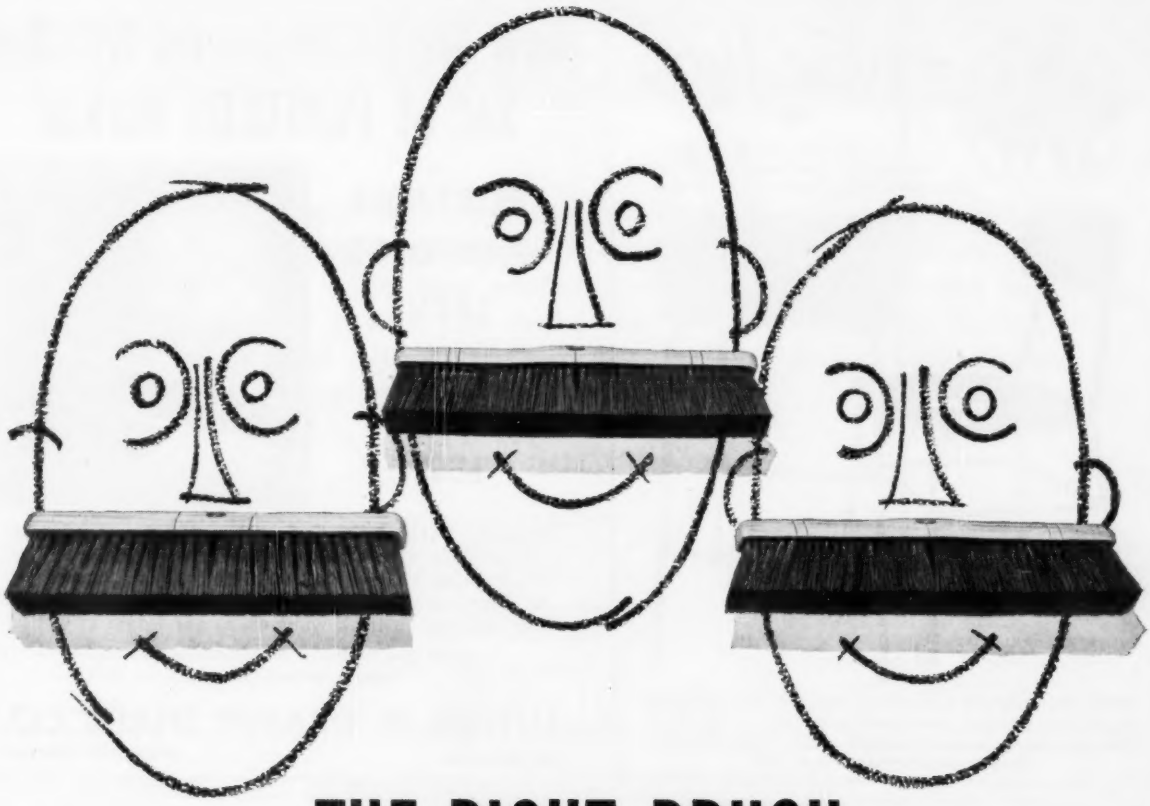
(For Further Details Circle Index Code 0175)

Details about a utensil washer for kitchens serving 500 to 10,000 or more meals per day are given in Bulletin KB565 recently issued by Food Machinery and Chemical Corp., Chicago 2, Ill. A jet disposer is also described in the bulletin which is available on request.

(For Further Details Circle Index Code 0176)

The outstanding features of a new triple purpose projector are outlined in a free brochure prepared by Projection Optics Co., Inc., Rochester 6, N. Y.

(For Further Details Circle Index Code 0177)



THE RIGHT BRUSH
SWEEPS CLEAN WITH ONE STROKE

THE PERCHERON
for rough floors

The Holcomb "Percheron" kicks out the dirt, makes quick work of sweeping even the roughest floors. Its heavy plastic bristle stock is self-cleaning and immune to the action of water, oil and most chemicals. Outwears ordinary heavy duty brushes many times. Made in 14, 18 and 24" block widths.

THE SHIRE
for medium floors

The Holcomb "Shire" offers a light weight touch for medium floors. A versatile plastic stock construction cuts sweeping time, moves light, coarse and heavy dirt with long, easy strokes. Stock tufts are securely anchored in hardwood block, won't work loose. "Shire" block width sizes are 14, 16, 18 and 24".

THE RACER
for smooth floors

The Holcomb "Racer" is the finest machine-made smooth floor brush money can buy. Center rows of stock are aggressive blend of fibre and hair—outer rows are *all* hair. Full flared ends permit a wider sweep. Block and handle design give longer, flat-to-the-floor sweeping stroke. 14, 16, 18, 24 and 36" blocks.

Let your Holcombman show you the right brush for your needs.
You'll profit on its one-stroke sweeping efficiency.

HOLCOMB SCIENTIFIC CLEANING MATERIALS

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EST. 1826

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New simplicity of design achieves style, comfort and classroom efficiency with strength to pass the test of time.

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Patents are pending on all the pieces of the Heywood-Wakefield Trim Line design. Heywood-Wakefield, School Furniture Division, Gardner, Mass. and Menominee, Mich.

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PORTABLE PAKFOLDS SERVE BEST... COST LESS!

Portable PAKFOLDS make every room a visual education room! One set of PAKFOLDS serves throughout the building. PAKFOLDS attach instantly . . . no ladders to climb; no screws or complicated mechanisms. Available for large or small windows, in any length or width.

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READER'S SERVICE SECTION

INDEX TO SCHOOL EQUIPMENT

The index and digest of advertisements below will help you obtain free information, catalogs, and product literature from the advertisers and companies listed in the new products section. Merely encircle the code number assigned to each firm in the request form below, clip the form and mail it to THE AMERICAN SCHOOL BOARD JOURNAL. Your request will receive prompt attention.

Code No.		Page No.
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TEAR ALONG PERFORATED LINE. POSTAGE PAID FOR CONVENIENCE.

THE AMERICAN SCHOOL BOARD JOURNAL November, 1956
400 North Broadway, Milwaukee 1, Wis.

Please ask the manufacturers, whose code numbers I have encircled, to send me free information, catalogs or product literature as mentioned in this issue of the JOURNAL.

ADVERTISING INDEX

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0165	0167										

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City_____ **Zone**____ **State**_____

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1146	**Medart Products, Inc., Fred** Gymnasium seating.	79
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1168	**Stran-Steel Corporation** Structural systems. For information use coupon page 23.	23
1169	**Structural Slate Co.** Natural slate.	86
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1179	**Will-Burt Company** Stokers.	8

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P. O. Box No. 2068

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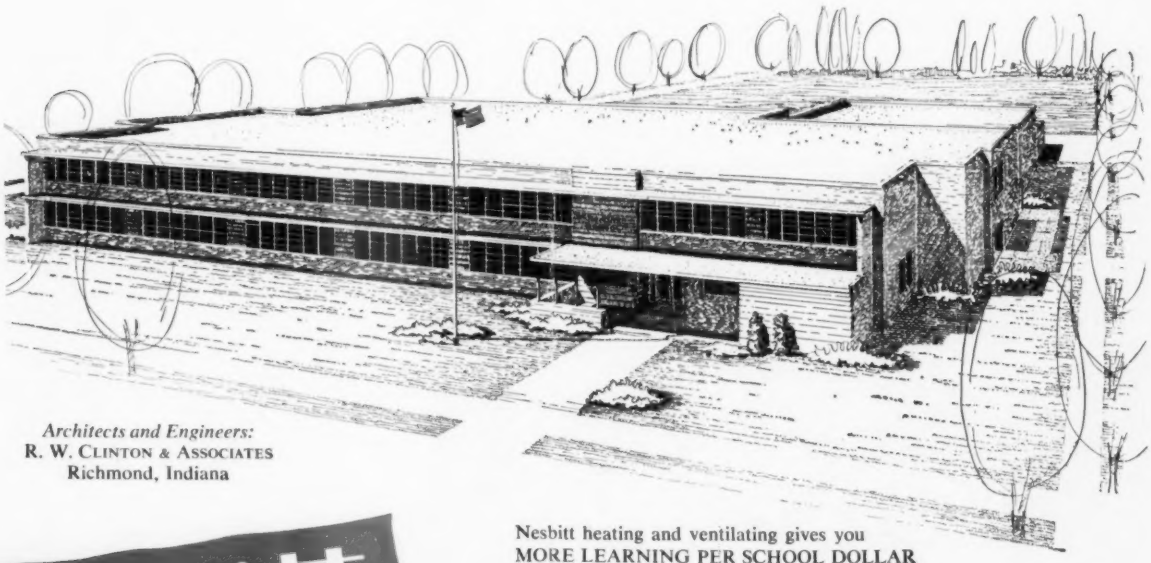

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